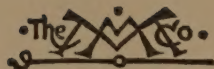


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THE AMERICAN ARTS COLLEGE



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THE AMERICAN ARTS COLLEGE

A LIMITED SURVEY

BY

FREDERICK J. KELLY, P_H.D.

DEAN OF ADMINISTRATION IN THE UNIVERSITY OF MINNESOTA

WITH THE AID OF A SUBVENTION FROM
THE COMMONWEALTH FUND OF NEW YORK

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PREFACE

A study such as is reported in the following pages is of necessity a co-operative enterprise. Hundreds of persons, faculty members, students, and alumni of the institutions visited, gave generously of their time and counsel. This is true particularly of the presidents and deans. While I am grateful to all those who assisted, especial thanks is due the administrative officers who gave hours of time to conferences with the author, and then checked up the manuscript with reference to its statements concerning their particular institutions.

The study was made possible by the financial aid of The Commonwealth Fund of New York. I am glad to acknowledge my indebtedness to the Fund, and to its Educational Research Committee, composed of the following men:

Max Farrand, *Chairman*,
Samuel P. Capen, *Secretary*,
James R. Angell,
Leonard P. Ayres,
Lotus D. Coffman,
Ellwood P. Cubberley,
Charles H. Judd,
Barry C. Smith,
Edward L. Thorndike.

The study was planned and carried out under the immediate direction of a special committee on Administrative Units, created by the Educational Research Committee

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named above. The special committee is made up of the following men:

Samuel P. Capen, *Chairman*,

Joseph C. Brown,

Lotus D. Coffman,

W. Wallace Charters,

Joseph M. Gwinn,

Charles H. Judd,

Albert B. Meredith,

Henry W. Suzzallo,

Will C. Wood.

To this committee I express my appreciation for the many manifestations of helpfulness. The greatest measure of thanks, however, is due Chancellor S. P. Capen, the University of Buffalo, who aided greatly in the formulations of the original plans for the study, and gave inestimable assistance at many other times.

Finally, I wish to acknowledge my indebtedness to Chancellor E. H. Lindley and other members of the administrative staff of the University of Kansas who generously volunteered to take on the added duties in order that I might be granted a leave of absence from my office there.

F. J. K.

Minneapolis, Minnesota,

February, 1925.

INTRODUCTION

The American college is a paradox. It is more severely criticized than any other institution in the educational system, and it is more popular than any other. It is the heart of university education, and it is the seat of most of the serious diseases that afflict universities. Men and women everywhere prize their college connections above all other connections, and yet these connections are the least demonstrably useful to them. The college is the most vulnerable institution that we have, and it is the most vital. Because we love it we chasten it. It has hardly responded to the chastening at all, but we love it still.

Nevertheless in spite of its vitality, and not at all because of the criticisms that have been leveled at it, the dominating position of the college in the American educational scheme is now threatened by irresistible social forces. These forces are finding surface expression in educational movements which promise to affect both the organization and the curriculum of every unit in our educational system. I mean such forces as the growing specialization of organized society; the demand that more and more persons shall possess the essential parts of the rapidly increasing store of human knowledge, or in other words the intellectualizing of civilization; the lengthening period of tutelage, combined with the insistent economic pressure for earlier entrance upon professional careers. These and other forces tend to alter the tempo of the lower schools and change the content of instruction. They are bearing heavily on professional schools and modifying both the aims and the methods of pro-

fessional education. What is the position of the college in this great tidal movement of society? What should be its position?

Oddly enough, we know very little about the college, in spite of the fact that it is so much discussed. The resources of the new scientific procedures of educational inquiry have seldom been applied to it. Research in college problems has been almost wholly lacking. This fact gives special significance to the study that occupies the following pages.

Dean Kelly's book furnishes the first description, that is both comprehensive and analytical, of the national effort in higher liberal education. With precision and restraint he draws a composite picture of the American college of today. He analyzes its aims and its practices. He evaluates its methods. He defines its relations to the other parts of the educational system. He formulates as they have not been formulated before its most critical problems.

The study is based on a personal examination of typical colleges located in all parts of the country. The almost infinite number of local variations which are largely superficial are hardly referred to and they have not been allowed to obscure the bold outlines of those characteristics common to all colleges. It is then in point of view as well as in scope a national study. College officers everywhere, however assiduous may have been their individual study of college problems, are certain to find Dean Kelly's analysis full of challenge and his suggestions stimulating.

The study is one of a group of investigations sponsored by the Committee on Administrative Units, which is a subdivision of the Educational Research Committee of the Commonwealth Fund. Each of these investigations deals with one of the typical institutional units in the American educational system. Each is broadly descriptive of the present administrative organization and curriculum of the

institutional unit in question. Each study attempts also to identify and to define the problems incident to improving, reforming, perhaps wholly reorganizing the institution to meet the demands of a changing society. Educators have long been agreed that essential reorganizations of the system are necessary for the sake both of economy of time and of increased efficiency. That these reorganizations have not taken place has been largely due to the absence of exact information regarding present practices, and the absence of valid definitions of objectives. The series of studies that the Committee on Administrative Units has organized is designed in part to make good these deficiencies. Dean Kelly's book is the second study of the series to come to publication.

Research in education is of comparatively recent origin. Its volume is now considerable, however, and its influence has been great. But although educational research has been largely the product of university scholars and although the universities have encouraged it and supported it, it has thus far dealt almost exclusively with the problems of the lower schools. Most educational issues in the university system are still settled by the time honored methods of compromise and majority votes, and without the support of scientific evidence. Such evidence may generally be had if universities will apply to their own procedure the same critical technique which they are ready enough to see applied to the procedure of the schools below. The situation is anomalous. Higher education offers a wide and fascinating field for scientific inquiry. It is difficult to understand why university schools of education have neglected this field so long. As one more important contribution, therefore, to the meager store of research in higher education Dean Kelly's study is especially welcome.

SAMUEL PAUL CAPEN.

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THE AMERICAN ARTS COLLEGE

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CHAPTER I

PURPOSE, SCOPE AND METHODS OF THE STUDY

PURPOSE OF THE STUDY. In defining the purpose of the study the committee representing the Commonwealth Fund made only the general statement: "A study of a selected group of colleges to discover exactly what they are on the educational side, what they are doing and how successfully they are reaching already determined objectives." It was thought that the study should have to be rather extensive than intensive at this time because it was recognized that relatively few objective measures are as yet available to determine success of college work. It was also hoped that, while being general, it would reveal the places where intensive studies could be made with profit and might also suggest the technique for the conduct of some of these investigations.

LIMITATIONS OF THE STUDY. With only the time of one person available for a few months, it was necessary to limit the study to a few aspects of colleges of arts and sciences. Because data upon (1) the training of college teachers, (2) their salaries, and (3) their teaching load are already available in fairly reliable form, these factors were eliminated from consideration. Furthermore, (1) costs, important as they are, (2) buildings and equipment, and

(3) service system such as heat, light, ventilation, janitors,, and the like, had to be eliminated also. It was thought best to concentrate upon (1) curricula and (2) methods of teaching current in colleges with (3) enough attention to the extra curricula activities of students to ascertain the bearing of these activities upon the aims and successes of colleges of arts.

THE DATA GATHERED. In Appendix A is given an outline of the study as it was approved by the Committee of the Commonwealth Fund. This outline will be observed to call for:

1. The determination of objectives of colleges of arts and sciences.
2. A list of topics on the organization and administration of colleges of arts.
3. A list of topics to be used in conference with faculty members.
4. A list of topics to be used in conference with representative students.
5. A questionnaire to be answered by a random sampling of seniors.
6. A questionnaire to be answered by representative alumni.
7. An outline of a communication to be sent to a selected list of the more distinguished alumni of the institutions studied.

In conference with S. P. Capen, Chancellor of the University of Buffalo, who is chairman of the sub-committee on administrative units of the research committee of the Commonwealth Fund, all the questions touching upon the outline were discussed and the colleges to be visited were decided upon. It was felt that time would permit visiting only about a dozen, and to get the most representative colleges of various types the following list was agreed upon:

State universities:—Minnesota, Washington, Nebraska, North Carolina.

Endowed universities:—Leland Stanford, Vanderbilt, Harvard.

Endowed colleges:—Dartmouth, Oberlin, Baker, Grinnell, Rockford.

City universities:—Cincinnati.

On account of time the visit to Rockford had to be abandoned but the questionnaire sheets to seniors and alumni were filled out for Rockford College. Brief visits were made to Reed College, the University of California, Yale University, and Smith College, in addition to those listed above.

Catalogues and other printed information have been available from many other institutions. Deans of many other colleges and a list of representative high school principals have also been called upon for their reactions concerning the aims of colleges. A summary of all the data which could be tabulated from the questionnaires will be found in Appendix B.

PROCEDURES DURING THE VISITS TO THE ABOVE COLLEGES. Naturally, practices varied according to the local conditions encountered, but, in general, it was the plan of the investigator to do the following things at each college:

1. Interview the president of the institution.
2. Have an extensive conference with the dean of the arts college, at which a full account of the machinery of organization and administration was given and arrangements were made for a representative group of the senior class to fill out the questionnaire to seniors.
3. Hold a series of conferences with representative members of the faculty, singly or in groups, upon the topics suggested in the outline.
4. Hold a series of conferences with students, particu-

larly members of the governing student council, singly or in groups, upon the topics suggested in the outline.

5. Plan with the secretary of the alumni association for forwarding approximately 125 of the alumni questionnaires to about 25 graduates of each class from 1910 to 1914 inclusive, accompanying the questionnaire with a letter, signed by the secretary of the alumni association, asking for the coöperation of the persons addressed. Secure from the secretary of the alumni association also a list of eight or ten names of the more distinguished alumni of the college, to whom the investigator might later address a personal inquiry about the work of colleges.

TREATMENT OF THE DATA OBTAINED. It must be clearly understood that the study did not contemplate a criticism, either individually or collectively, of the colleges visited. No attempt was to be made to indicate that one college was superior to another. Instead, these colleges were willing to devote time to providing data which would be representative of college practice in general. Criticism, whatever seemed warranted, would thus be made concerning a college practice and not concerning the practice of a given college. Furthermore, data from other colleges than the ones listed are freely used to illustrate practices.

No attempt is made, therefore, to give a full account of the activities of any college. Nor is it the purpose of the report to indicate for every college visited what its practice is in respect to the topics being reported or discussed. Instead, the data are thrown together, so to speak, and from them all the significant types—both practices and opinions—are picked out for mention. It will be borne in mind, therefore, that the omission of any mention of a given institution with reference to a practice under dis-

cussion does not mean that that institution is lacking in respect to that practice. Mention of institutions in connection with given practices is made primarily to give greater concreteness to the statement, and also to allow of further investigation by readers who may be interested.

CHAPTER II

THE AIMS OF THE COLLEGES OF ARTS AND SCIENCES

THE LITERATURE. A large proportion of educational literature bears in one way or another upon the aims of education. It would require many pages to list the titles of articles which discuss directly the question of aims of higher education. The purpose of this chapter is not to undertake a review of this literature, but rather to bring into the foreground certain questions concerning the aims of the liberal arts college, the answers to which will determine in part the soundness of the practices found in colleges, practices which will be discussed in later chapters.

Among all the articles dealing with college aims, one is so important and so pertinent to the study to be reported below that it might well be incorporated in toto. It is an analysis of the most significant statements of the aims of the college (and hereafter college will be used to mean the organization found under various names such as college of arts, college of literature, science and the arts, etc.) given by L. V. Koos and C. C. Crawford in "College Aims, Past and Present," in *School and Society*, December 3, 1921. This article is one of a series of studies just published in book form¹ the whole series dealing in a most comprehensive way with the forces working for the reorganization of the college. With such careful studies already available, it

✓ ¹ L. V. Koos, *The Junior College*, No. 5, Education Series, Research Publications, The University of Minnesota.

seems unnecessary to make another analysis of the literature on college aims.

As the most recent stimulating pronouncements by college men themselves, reference is made to a symposium on college objectives and ideals, reported in the 1923 Proceedings of the Association of American Colleges. When leaders in college circles are as critical of their own practices, and as dissatisfied with their results as these speakers are, it is not surprising that other students of the problem are critical.

REPLIES FROM COLLEGE DEANS. To supplement all this literature on college aims, many deans of colleges were requested to formulate, or have their faculties formulate such statements as represent the present convictions of college teachers and executive officers as to the aims or purposes of the college. The letter and enclosure (reproduced in Appendix A, page 175) were sent addressed personally and written individually to the deans of the colleges in ten state universities, six endowed universities, and twenty-four endowed colleges, excluding in each class the colleges visited by the writer. Answers were received from practically all and seventeen found time to formulate a statement of aims or to send a statement already formulated. Of these statements, six are from state or city universities, two from endowed universities and nine from endowed colleges.

Because the statements submitted by college deans are so diverse in terminology, any attempt at interpretation or summary would seem unwise without at the same time quoting the essentials from the statements. Below are given such extracts:

Two deans, *Zampiere*, *Washburn College* (after discussion with the president and other members of the faculty) and *Comstock*, formerly of *Smith College*, accept the following statement submitted to all the deans for criticism:

THE AMERICAN ARTS COLLEGE

The Aims of the College of Arts and Sciences are:

1. *Preparatory*: Supplementing the work of the lower schools, a college education should give possession of such tools of learning as will make the pursuit of necessary study both in college and throughout life pleasant and effective.
2. *Cultural*: In preparation for the non-vocational life, a college education should secure:
 - a. The possession of such an appreciation of one's own responsibility for social progress and such an attitude toward study as will most nearly assure a scholarly examination of social situations as they arise in life.
 - b. The possession of such information, social experience, and aesthetic appreciation as will most nearly assure judgments, both intellectual and moral, in accord with modern social demands.
 - c. Self-mastery such as will most nearly assure behavior in conformity with one's judgment.
3. *Vocational*:
 - a. So far as it can be given more effectively and economically in college than in apprenticeship, the college should afford such knowledge and skill in those vocations, success in which depends to a marked degree upon general culture, as will most nearly assure successful pursuit of the given vocations with a minimum term of apprenticeship.
 - b. In connection with those vocations calling for highly specialized curricula, the college should afford those general studies which are basic for the specialized curricula, but which are not in themselves specialized to any considerable extent.

Dean Benedict, *University of Texas*, makes the following criticism of the above statement as submitted to the deans:

"I think that your first paragraph could be rewritten to advantage. A and B under Cultural are good statements. I would add a D and E to read as follows:

D. The enrichment of life.

E. Insight into the Universe.

Under Vocational I would add a C to read as follows:

C. To provide specific vocational training of college grade, when such training is not provided in specific vocational (professional) schools.

e.g. B. A. as a basis for a Ph.D in English to get a college professorship.

B. A. in Botany to commence being a bacteriologist."

The following institutions refer to statements found in their respective catalogs or other publications:

Bowdoin: As stated by the late President Hyde:

"To be at home in all lands and ages, to count Nature a familiar acquaintance, and Art an intimate friend; to gain a standard for the appreciation of other men's work and the criticism of your own; to carry the keys of the world's library in your pocket, and feel its resources behind you in whatever task you undertake; to make hosts of friends among the men of your own age who are to be leaders in all walks of life; to lose yourself in generous enthusiasms and cooperate with others for common ends; to learn manners from students who are gentlemen, and form character under professors who are Christians, this is the offer of the College for the best four years of your life."

Swarthmore:

"The intention of its founders was to make the promotion of Christian character the first consideration and to provide opportunities for liberal culture while maintaining a high standard of scholarship."

Goucher:

"The ideal entertained by the founders of the college is the formation of womanly character for womanly ends—a character appreciative of excellence; capable of adaptation to whatever responsibilities life may bring; efficient alike in duties of home and of society; resourceful in leisure; reverent toward accepted truths, yet intelligently regardful of pro-

gressive ideas; earnest and purposeful, but gentle and self-controlled."

Carleton:

"The college aims to provide opportunities for its students to secure a broad and liberal culture. Its primary interest is in students who plan to take full four-year college course as a foundation for later professional study and life work. The college is especially concerned with the moral welfare of its students and strives to preserve a genuine Christian atmosphere and to have all of its influence count for the development of strong and well-grounded character."

Cincinnati University:

1. The primary aim of the American Arts College is to provide, through a course of four years, the fundamentals of a liberal education.
2. Its secondary aim is to furnish, through a briefer course of one or two years, the general training necessary for those who wish to enter as soon as feasible upon professional study.

The Fundamentals of a liberal education are:

1. A knowledge of essential facts in the major departments of human thought and activity.
2. The harmonious development of all your powers, rather than the training of some one at the expense of the others, for a single end.
3. The ability to think independently in a number of directions rather than in one alone.
4. Power of expression and communication, the ability through action, and especially through language, to bring to bear upon others your individual thought, emotion and will.

Chicago University:

"The general function of the College of Arts, Literature and Science is to provide training for efficiency in labor for one's self and for society and for the enjoyment of leisure by one's self and in society."

University of Kansas:

"The College course should be directed to the following ends:

1. To awaken the student to the problems of the personal and civic life of his own day.
2. To develop in him, with relation to these problems, something both of the historical sense and of the scientific spirit; an understanding of the origins of present conditions, and a spirit of fearless, disinterested, critical thought in analysis of those conditions.
3. Since the college course is to be regarded not as the end, but as almost the beginning of a life-long process of orientation in the world of men and of ideas, to equip the student with such tools in mastery of his native tongue, and in serviceable acquaintance with other tongues, and to cultivate in him such tastes for literature and the other arts as shall make his citizenship in the world both effective and profitable.
4. To give training in some specific field, that the student may become immediately useful to society."

Yale submits a quotation from ex-President Hadley:

"The original charter of the Collegiate School at New Haven in 1701 states that it was established to train the youth of the Colony for public service in Church and in Civil State. They wished to develop a body of freemen who could shape public opinion and administer public affairs with the wisdom necessary for the safety of the Commonwealth.

In later years this view has been sometimes challenged or ignored by those who regard colleges as means of individual culture, rather than of public usefulness. But I believe that it is still the dominant one; that our colleges still exist primarily for the purpose of training American citizens, and that their maintenance and growth has been due to the success with which they have fulfilled that mission.

What are the habits and powers most needed by the citizens of a free country like the United States? I am inclined to group them under three heads: first, the habit of self government; second, the habit of public spirit; third, the habit of constructive thought."

Haverford also submits a quotation from ex-President Hadley of Yale:

"A good college education should teach a man those things which he will *not* need to use in after life by methods that he *will* need to use."

The University of Illinois submits the following approved by the Faculty Committee on College Policy:

"The college of liberal arts and sciences seeks to train its students for individual, civic, and less directly, for professional life. For individual life, by arousing interests that may fill one's leisure with varied and worthy enjoyment; for civic life, by enlightenment upon political and social conditions and by cultivation of independent judgment and sense of civic responsibility; for professional life, by providing useful tools, and, in particular, that rigorous discipline in thinking which underlies all professional work.

By the study of pure science the student is taught exact observation, precise recording, and generalization within limited fields; by mathematics and philosophy, he is trained in abstract thought, his imagination is both quickened and controlled, and he is, accordingly, fitted for more accurate inference and wider generalization; in the historical, literary and artistic departments he is introduced to the more complex problems of human relationships, familiarized with the accumulated experiences of the race, and thus freed from the narrow limits of the provincial and the contemporary. Thus viewed, the curriculum of liberal arts and sciences, with its several disciplines interrelated and overlapping, rather than sharply differentiated, is a process of liberalization, of freeing the mind from the prejudices and limitations of inexact and partial knowledge or promoting a sympathetic understanding of the forces molding character, and of opening the eyes to see life steadily and see it whole."

University of Wisconsin: President Birge in 1917, while Dean of the College, wrote:

"The general student is trying out his mind in various fields of thought before entering on the process of technical training which is to come later in his life. He knows that technical training is necessary to success. He knows that it gives

much, but that once entered upon, it also excludes much. He, therefore, would enlarge his mind on various sides and train it along several lines before he begins to shape it for his profession; since he knows that such enlargement and training will probably be impossible after professional shaping has once begun. Such a student, therefore, is continuing for himself that postponement of specialization which is at bottom of human development and the advancement of civilization, because it has permitted the rise and the strengthening of personality before the shaping forces of vocation begin to work."

University of Wisconsin, Dean Sellery:

"The College of Letters and Science was established to equip the youth of the new state for worthy living, by familiarizing them with the best that man has thought and done. The college still fosters its original purpose, broadened now to include, more consciously, the development of personality, tolerance and sympathy. In addition, recognizing that the world needs special training, along many applied lines, the college has instituted many special "courses," as chemistry, commerce, journalism and music."

University of Missouri, Dean Tisdell:

"I think the aims might be stated as follows:

1. To give the basic training preparatory to professional and technical study.
2. To prepare for graduate study and research.
3. To give such a broad cultural training as shall include:
 - a. The ability to think clearly and without prejudice, as represented by the scientific spirit and the scientific method.
 - b. A sense of values such as is implied by the humanistic spirit and the philosophic and æsthetic method.
 - c. A developed social consciousness—the ability to think to a social end."

Ohio State University, Dean Henderson:

"The College of Arts, Philosophy and Science expresses the abiding faith of the State in the value of a course of liberal studies as a preparation for life. It is a fundamental unit in

the university structure, and it is indispensable to the realization of the University idea. Its objective is a better type of man and woman—a citizen with sympathies broader than the confines of any one profession and with character and understanding developed by humanizing studies and by elevating associations with the best ideals of all ages."

REPLIES FROM HIGH SCHOOL PRINCIPALS. Before attempting a summary of these statements of college aims, it seems well to give the results of an inquiry addressed to high school principals. The aims of the senior high school were sought with special reference to the relation between those aims and aims of the college. The letter and enclosure reproduced in Appendix A, page 177, were sent to forty-three representative high school principals in the larger high schools in all sections of the country. It will be observed that the statement of senior high school aims offered for criticism to the high school principals is identical in essential respects with the statement of college aims submitted for criticism to the college deans. Fifteen high school principals submitted formulations of high school aims, or criticisms of the statement submitted.

The essential quotations from the answers of high school principals are given below:

Six endorse essentially the following statement of senior high school aims as submitted for criticism to all the high school principals:

The aims of the Senior High School:

1. *Preparatory*: Supplementing the work of the lower schools to give possession of such tools of learning as will make the pursuit of necessary study both in high school and throughout life pleasant and effective.
2. *Cultural*: In preparation for the non-vocational life, to give:
 - a. The possession of such an appreciation of one's own

responsibility for social progress and such an attitude toward study as will most nearly assure a scholarly examination of social situations as they arise in life.

- b. The possession of such information, social experience, and æsthetic appreciation as will most nearly assure judgments, both intellectual and moral, in accord with modern social demands.
 - c. Self-mastery such as will most nearly assure behavior in conformity with one's judgment.
3. *Vocational*: So far as it can be given more effectively and economically in high school than in apprenticeship, the high school should afford such knowledge and skill in those vocations, success in which depends to a marked degree upon general culture, as will most nearly assure successful pursuit of the given vocations with a minimum term of apprenticeship.

One high school principal would add health and avocational purposes to the statement submitted.

One would substitute the "cardinal objectives" outlined by Kingsley and his committee.

Brief quotations from the other replies:

W. D. Lewis until February, 1923, in charge of Secondary Schools, Pennsylvania State Department of Education:

"I should criticise all of the three statements you submit because they emphasize the service of the school to the individual. The development of the right habits of thought and feeling in their relation to organized society and all the skills essential to social cooperation is the fundamental justification of the large expense of the public high school."

George Buck, Principal, Shortridge High School, Indianapolis:

"I do not see how I can improve very much on the statement of aims which accompanied your letter. In a secondary school I am of the opinion that the content of the curriculum does not matter so much, but I am sure that through whatever content you have there should be developed in the

students power and appreciation. I mean by this the power to think and act and to take the initiative, and I believe they should have developed an appreciation for what is fine in all higher realms of thought, the beautiful in literature, art, and music, and the good in character."

J. A. Larson, Principal Senior High School, Little Rock, Ark.:

"May I say in the beginning that I think your definition of aims and purposes for the senior high school is very good. I should supplement by adding the following which to me do not seem to stand out as they might:

1. I feel that more stress should be placed upon making the high school the corner-stone and cap-sheaf of the education of most of the people—making it a real people's college. The pupils should be made to feel by leading them into it more and more through pupil cooperation that they are citizens today and that SERVICE is what counts in this life, what we give and not what we get out of others, real citizenship.
Vocational preparation in its broadest sense should be built more firmly on "broadening and finding" courses of the junior high school. The pupil should have found or discovered what he likely is to do through these courses in the junior high school and then go to work in earnest in the senior high to work these things out.
2. College preparation for those intending to enter higher institutions of learning should be given in such a way and so impressed upon pupils that the success of these pupils in college is assured.
3. Appreciation of the beautiful, be it music, art, or literature, should be one of the chief aims of the senior high school. We have too much of the ugly now in these fields to make life what it ought to be. We should no longer be savage."

H. T. Steeper, Principal West High School, Des Moines, Iowa:

"To continue more intensively the work of the elementary school, in the training for intelligent, responsible citizenship in our democracy. In the high school the student learns

through actual participation in student government, athletics and other activities, to discharge the duties and responsibilities of citizenship.

This involves:

1. The formation of habits of industry, integrity, accuracy, thoroughness, promptness, thoughtfulness, and responsibility.
2. The giving of a broad cultural basis for interpreting life, adapting one's self to one's conditions and gaining the proper appreciation of the finer and more worth while things of life—recreational, intellectual and spiritual.
3. The laying of a foundation—in all the above ways—upon which special training may well be laid in preparation for rendering efficient service in one's chosen vocation. For students who are going directly into business or industry, specific training for the work should be given as far as possible."

SUMMARY OF REPLIES FROM COLLEGE DEANS AND HIGH SCHOOL PRINCIPALS. While it is impossible to treat the above replies statistically, a careful perusal of them seems to warrant the following:

1. The chief criticisms of the statement of aims and purposes of the senior high school, as sent to high school principals for criticism, consist of amplifications or additions to the points stated. There is relatively little adverse criticism offered.
2. Few faculties of either high schools or colleges have formulated a statement of aims to which they have by vote agreed. The statements of college aims submitted represent generally the formulation made by the president or the dean of the college, or a committee of the faculty appointed for the purpose of passing upon such formulation. In some cases reference is made to the original act of the founder of the college, whose statement is held still to be the guiding purpose of the college.
3. There is no clear line of demarkation between the aims and purposes of the senior high school and the aims and purposes of the liberal arts college so far as their cultural

aspects are concerned. The difference is mainly one of the level upon which the same studies are pursued.

4. That in this combined senior high school and college period, acquisition of information is a means, rather than an end. The important question is not what does a person of general cultural education know but how does he modify his conduct by virtue of his education.
5. That the development of such intellectual traits as will assure a studious attack upon life's problems and such moral strengths as will assure living among civic and other social and leisure problems in conformity with life's highest demands is the real non-vocational aim of the period of general education.
6. That preparation for a vocation, while it may have a proper place in the organization, known today as the college, is a separate function, present in some colleges and absent in others. Where it is admitted into the college plans, it must not be allowed to destroy the aims set forth in (5) above.

ANSWERS FROM WELL KNOWN COLLEGE ALUMNI. Bearing directly upon the aims of the college is the first question asked of about seventy-five well known alumni of colleges of arts whose names were suggested by the secretaries of alumni associations of the colleges visited. That question was, "Which is most significant in determining the value of a college subject of study: (a) the information acquired; (b) the habits of study acquired; (c) the ideals of character established?"

From the thirty-one direct answers to this question, only two rank the information acquired as of first importance; only two others rank it second in importance. Among these college graduates, whose names are widely known over the country—prominent in business, professional or social circles, many take occasion to use very emphatic language in asserting that the information contained in the courses studied is only a means to the end of building an intellectual and moral citizenship.

STATEMENT OF THE AIMS OF THE COLLEGE. I shall now endeavor to formulate a statement of the aims or purposes of the college of arts and sciences embodying the spirit which seems to prevail most commonly among those who have spoken on the subject.

The aims or purposes of the college: In addition to preserving health which is the most basic demand of any educational system, there are three fairly distinct functions of the college:

1. *Preparatory:* Throughout the educational process, opportunity must be afforded for the mastery of the tools of learning by which progress into the higher and higher reaches of knowledge can be assured. The college must take up this task where the lower school leaves it off, and the extent of study devoted to a tool subject by any student should be determined by the use the student is expected to make of it. Among these tools may be listed:
 - a. The mother tongue, both to speak and to write.
 - b. Foreign languages.
 - c. Numbers, figures and mathematical formulae.
 - d. The language and symbols used to express the fine arts—music, drawing, painting, design, etc.
2. *Cultural or non-vocational:* As soon as a child gains any facility with the tools of learning, he begins the assimilation of culture, learning to live better as a member of the family, community, state, nation and the world. The college is the final unit in the regularly organized educational system to achieve this end. The limit to the extent of study for culture is either (1) the one imposed by individual necessity in taking up the task of earning a living or preparing to earn a living, or (2) the one imposed by social welfare, the age at which entrance upon earning or preparation to earn, is of greatest good to society as a whole. To satisfy (1) it is essential that vocational training in those callings not so dependent upon wide general education be available to students at various ages—say from 16 years up. What (2) demands is a question calling for more study by sociologists than has

yet been devoted to it before it can be answered. Pending such study, cultural education in elementary school, high school, and college, will fill in all the time left to it between the mastery of the tools of learning below and the vocational or professional training above. The part to be played by the college, dovetailing with and enlarging upon the work of the lower schools, is to make as much progress toward the following goals as the years which students devote to college make possible:

- a. A social viewpoint,—appreciation of one's responsibility for social well-being and social progress.
 - b. Perspective,—information, social experience and æsthetic appreciation required for judgments in line with social progress.
 - c. Initiative,—required to insure against indifference or inaction.
 - d. Intellectual training,—required to assure a trustworthy procedure in the solution of new problems.
 - e. Self-mastery,—required to assure conduct in line with one's principles.
3. *Vocational:* At the appropriate place in the educational period of every young man or woman, opportunity should be available in either apprenticeship or in vocational and professional schools to prepare for earning a living. What part of this vocational training should be given within a college organization is determined largely by the exigencies of the situation. It is not an intrinsic part of a liberal arts and science curriculum. However, economy, and probably efficiency as well, prompts the inclusion within the college of the following:
- a. So far as it can be given more effectively and economically in college than in apprenticeship, the college should afford such knowledge and skill in those vocations which are dependent to a large degree upon general culture, as will most nearly assure success in a given vocation with a minimum term of apprenticeship.
 - b. In connection with those vocations calling for highly specialized curricula, the college should afford those pre-vocational studies which are basic for the speci-

alized curricula, but which are not themselves specialized to any considerable extent.

IMPLICATIONS FOLLOWING FROM THE FOREGOING STATEMENT OF AIMS. A. Very important distinctions are called for by the above threefold nature of college aims. The desired outcome of that college work, the aim of which is preparatory, is largely facility in its use in connection with cultural or vocational study. The desired outcome of that college work, the aim of which is cultural, is largely subtle changes in personality. The desired outcome of that college work, the aim of which is vocational, is largely knowledge and skill for meeting vocational situations.

THEREFORE:

1. Methods of teaching used with the three types of courses, having the different aims, should be different:
 - a. The keynotes of the method for preparatory courses are the memorizing of tools, symbols, and processes, and the acquisition of skill in their use. These require a sound memorizing technique and practice.
 - b. The keynote of the method for cultural courses is interpretation or thinking, requiring interest and participation.
 - c. The keynote of the method for vocational courses is systematized technical information plus the application of this information to vocational cases. This requires large equipment, opportunity for specialized study, and intimate contacts with vocations.
2. The training of teachers for the three types of courses should be different.
 - a. For preparatory courses, the teacher has little use, except as a cultured man or woman, for broad cultural training, but needs special training in the methods of securing lasting memory.
 - b. For cultural courses, the teacher has equal need for (1) broad cultural training by means of which he can interpret life for his students and for (2) knowledge of his students that he may adapt his materials suitably for their interpretation. A

teacher who is mainly a specialist in some department of learning, and who gives chief attention to his subject, rather than to his students, has little chance to achieve the aims of cultural courses. Nowhere else in the teaching field is a broad training in psychology, sociology, and education so much needed as by teachers of cultural courses, whether in elementary school, high school or college.

- c. For vocational courses, the teacher's first requirement is a thorough knowledge of the field of the given vocation. Since students have a definite motive actuating their study, the teacher's chief function is to lay out for them the materials needed and assist them in the most economical method of assimilating these materials.
3. The schemes of evaluating results of students' work in the three types of courses should be different:
 - a. In the preparatory courses the test is: "Can he use it in the further study for which it is a tool?"
 - b. In the cultural courses the test is: "Is he living it?"
 - c. In the vocational courses the tests are: "Does he know it?" and "can he apply it to vocational situations?"
4. The bases for selecting materials for the three types of courses should be different:
 - a. In preparatory courses the selection of materials and the amount in each case is determined by the question, "What will the student use?"
 - b. In cultural courses the selection of materials is determined by the question, "What will lend itself best to the teacher's purpose of securing *thinking*—resulting in (1) a social viewpoint; (2) broad perspective; (3) the exercise of initiative; (4) trustworthy mental habits; and (5) high resolves effecting the submergence of self in the social good.
 - c. In vocational courses, the selection of materials is determined by the question, "What does the vocation call for?"

The above differences in methods of teaching, training of teachers, measuring results and selecting materials for

courses are seen to be rather fundamental. The writer recognizes that there will not be universal acceptance of the validity of the differences claimed. However, he believes the discontent so prevalent among college teachers themselves as to the outcome of their work would be more effectively allayed by their recognition of these differences than by any other change in the college. The three-fold aim is commonly accepted, but the differences in practice demanded thereby have been quite generally disregarded.

B. The study of a language as a tool, whether English or a foreign language, must be carefully distinguished in function from a study of literature by means of that tool. The latter is, of course, either cultural or vocational in aim.

C. There is a unity of purpose between the high school and college which calls for the closest union in both materials and methods, between these two parts of the educational system.

D. Specialization or concentration may be for either cultural ends or vocational ends. Probably it will be found, as pointed out by Professor L. V. Koos¹ in his recent volume of college studies, that in the minds of the great majority of students, the vocational aim is dominant in the specialization study, particularly in a college within a university. At any rate, where the aim is cultural, teachers, methods, and materials for the specialization studies should be chosen in the light of the implications set forth above for cultural courses. If the aim is vocational, teachers, methods and materials should be chosen primarily in the light of the implications sets forth for vocational courses. Colleges having no vocational aim may well have the elementary and advanced work of any

¹ L. V. Koos, *ibid.*

given department handled by a common departmental staff, both general courses and specialization courses. Colleges, admitting a vocational aim for their fields of concentration, will logically require fairly distinct separation in teachers and methods between the cultural courses and the specialization courses.

E. Serious doubt is raised as to the validity of the present practice of recruiting teachers for the cultural courses in high school and college from graduate schools having as their main function the development of research ability, thus tending to extreme specialization, with emphasis upon information as the end of education. Such training may be appropriate for teachers of vocational courses, but not, it would seem, for teachers of cultural courses.

F. The so-called extra-curricula activities, largely under student initiative and control, are an important factor in accomplishing the cultural purposes of the college.

CHAPTER III

COLLEGE COURSES AND CURRICULA

For discussion of the principles involved in the determination of college courses and curricula, reference is made to two series of articles:

1. "American College and its Curriculum," a series of ten discussions, four by college or university presidents, and six by college or university professors, published in a supplement of the "New Republic," New York City, October 25, 1922.
2. A report of the commission on "The Organization of the College Curriculum," a discussion by six leading educators reported in the bulletin of the Association of American Colleges, April, 1923.

For a discussion of details concerning college entrance requirements, reference is made to:

1. "College Entrance Requirements," by Clarence Kinsley, bulletin of the United States Bureau of Education, No. 7, 1913. This bulletin discusses in detail requirements of two hundred and four colleges of Liberal Arts.
2. "Entrance Requirements of Colleges Belonging to the Association of Colleges and Secondary Schools of the Southern States," by Clyde Furst, Secretary of the Carnegie Foundation for the Advancement of Teaching, 1922.
3. Studies on (a) "The Advancing Age of the College Entrant"; (b) "The Widening Scope of College Entrance Requirements," and (c) "The Downward Shift of the Materials of the College Curriculum," both in a recent book by L. V. Koos.¹

For detailed accounts of requirements for graduation in colleges of arts, reference is made to three studies:

¹ L. V. Koos, *ibid.*

1. "Requirements for the Bachelor's Degree," by Walter C. John in Bulletin No. 7, 1920, United States Bureau of Education.
2. "Studies in College Curricula," in the bulletin of Association of American Colleges, December, 1921. This bulletin gives for each department of a large list of colleges the number of courses (a) advertised; (b) taught, and (c) student enrollment. Brief statements of requirements for graduation in each college are also given.
3. Annual report of the Commission on "College Curricula," bulletin of the Association of American Colleges, January, 1922. This bulletin gives the changes in student hours of instruction between 1911-1912 and 1919-1920; shows a decline in Ancient Languages and Mathematics, a slight increase in Sciences and a marked increase in the Social Sciences, notably, Economics.

With these quantitative studies already in print, my report on each of the following six aspects of college courses and curricula will be concerned more with detailed account and opinions growing out of my intimate contacts with a few colleges.

Although they are not entirely distinct, six aspects of the college curricula will be treated separately.

A. Admission requirements.

B. Dovetailing college requirements with entrance subjects.

C. Courses required for graduation.

D. Methods of securing breadth of training.

E. Methods of securing specialization.

F. Variations in requirements for students of varying abilities.

A. ADMISSION REQUIREMENTS.

1. CURRENT PRACTICES AND TENDENCIES:

- a. *General statement.* The almost universal practice now is to require for admission to college the equivalent of graduation from a standard four-year

high school. A student must show either by certificate or examination that his study has covered fifteen year units. In nearly all cases, five of these units are fixed and from two to ten of the remaining units are fixed within certain subject groups. The tendency, however, is to allow the student to offer for a few of the required fifteen units any work accepted for graduation by the high school.

- b. *Recommendation of high school principal.* There is a growing tendency to require principals of high schools to assume more responsibility for stating whether or not the student, in respect to character, scholarship and intellectual endowment, is qualified to do college work.
- c. *Recommendation of well known citizen.* In Oberlin the high school graduate must present an endorsement by some prominent citizen who knows him intimately. Wherever possible, this citizen is expected to be an alumnus of Oberlin and his recommendation covers certain definite points relative to the prospective student's character and ability.

In Dartmouth the prospective student is required to have sent directly to the college by some alumnus of Dartmouth, a personal rating blank in which the alumnus ranks the prospective student in the following qualities: intellectual interest, individuality, native ability, faithfulness, originality and integrity, straightforwardness, clear-mindedness, fair play, school spirit, interest in fellows, and leadership. The alumnus also signs the following certificate: "I certify that the candidate possesses in my judgment, the qualities listed above to the degree there indicated." The weight thus attached to other qualities than marks in high school subjects is significant.

- d. *Comprehensive examinations.* An increasing num-

ber of colleges which use the plan of examination for admission are resorting to the comprehensive examination as a substitute for examinations of the entire fifteen units. This examination calls for a more comprehensive grasp of a few larger fields and its purpose is to call for more evidence of scholarship than does the more detailed examinations over the whole range of entrance subjects.

- e. *Psychological tests.* The tendency has not grown markedly to use psychological tests in any very formal way to determine admission to college. Many colleges are engaged in the use of psychological tests for assistance in analyzing students' needs, but up to date the colleges have placed main emphasis in their giving of psychological tests upon a study of the tests themselves to determine the extent of their usefulness.
- f. *Admission by scholarship standards higher than merely passing.* A significant tendency may be illustrated by the practice at three institutions:
 - (1) At the University of Washington only those students are admitted without examination who have passed at least two-thirds of their high school work with a grade of 80. This standard was arrived at by conference between high school principals and university officials.
 - (2) At Stanford, in the case of graduates of high schools which do not distinguish between a "pass" mark and a "recommending" mark, no subject will be credited for entrance unless the grade be at least five points on the scale of one hundred higher than the lowest passing mark.
 - (3) At Dartmouth is illustrated the tendency to appeal to high school students of unusual ability. Graduates of approved high schools are admitted to Dartmouth without examination and without reference to the subjects

which they followed in high school (except for 3 units of English and $2\frac{1}{2}$ units of Mathematics) provided they have taken their full four years course in the given high school, and provided further that their credits for the entire four years of work rank them in the best one-fourth of their class in high school.

g. *Geographical distribution of students.* In order to break up the tendency of institutions to be dominantly local and to give them a more distinctly national character, the practice of Dartmouth may be cited. There the principle of geographical distribution operates so that

- (1) Admission will be given first to all properly qualified members of the following groups:
 - (a) Residents of State of New Hampshire.
 - (b) Residents of districts west of the Mississippi.
 - (c) Residents of districts south of the Potomac and Ohio rivers.
- (2) Geographical distribution shall be a prevailing factor in selecting among groups of otherwise equally desirable applicants.

2. OPINIONS:

The college has discovered, as will be pointed out later, certain weaknesses in the elective system. College teachers criticize the output of high schools on the same basis.

"Hodge Podge," "Cafeteria fed minds" and other phrases indicate the view which many faculty people have about the products of high schools under the prevailing elective system.

High schools serving the local communities as "people's colleges," providing for as great a breadth of training as possible, allow students to graduate without a very clear mastery of any of the fields studied. Graduates of the same high school, therefore, vary widely in their ability

to pursue college work. High school teachers have perhaps merited the same criticism which college teachers pretty largely admit concerning themselves, that they have thought of information as the main outcome of high school work, rather than training in habits of study, the assumption of responsibility or initiative. High school graduates, therefore, go to college having forgotten much of the information which they had memorized, and in many cases with neither the disposition nor the ability to proceed with study independently.

Therefore, the chief plea of college teachers is that high schools should send them students both disposed to study and able to study and the colleges wouldn't care very much what subjects had been pursued while attaining these qualities.

3. CRITICISM.

The opinions of college teachers cited above constitute the main adverse criticism against current admission requirements. There should be a continuity of purpose and program between high school and college, and a unity of aim understood alike by high school and college teachers. The statement of aims of the college made in the previous chapter will apply in most respects to the senior high school as well. The adjustment of materials and methods according to different ages of students to these common aims is the big job of high school teachers on the one hand and college teachers on the other.

College teachers, departmental specialists in most cases, expect the high school to have overcome most of the frailties of youth and to send students on to college ready to study whatever they ought to study in the way most effective. Then when the college teacher reveals from his storehouse of knowledge the precious truths so essential as

a foundation for later specialized study in the same field, he expects the student to seize upon those truths with enthusiasm. He is disappointed because the average student doesn't prize his truths, and he finds it necessary to set all sorts of requirements, daily papers, weekly quizzes, notebooks, etc., to see that the truths are at least learned temporarily. Thus, the teacher soon falls more or less completely into the dull routine of daily assignments, daily quizzes and monotonous lectures because "The students we get these days are a sorry lot." The college entrance requirements "do not prepare for college work," and the high schools are to blame.

In this the college teachers are half right and half wrong. If the high school did what many college teachers are asking it to do, it would complete the general cultural training of its students. When a student is so trained that he will study what he ought to study in the most effective way, he has no further need of teachers in the general cultural courses. He can study those himself. He is ready for specialized, not college work. On the other hand, the high schools should strive more consciously to inculcate those mental and social qualities called for in effective independent study.

Requiring a rating of the essential components of the student's personality is a prophetic tendency. When the high school record commonly takes account of the qualities listed on the Dartmouth Personnel Rating blank cited above, then we shall have a recognition of the real aims of that unit of the school system. No doubt the college will find it wise, then to continue to evaluate students on the same points.

4. NEEDED RESEARCH.

Objective studies are needed tending to show the comparative values of high school subjects in producing in

students an initiative and independence in their work and effective habits of study with which they can proceed to any advanced courses. Especially should the values of such subjects as drawing, cooking and stenography be compared with those of mathematics, history and language. The conclusions at present arrived at by students of this question are often erroneous because they fail to take into account the factor of native ability which frequently determines the choice of subjects in high school and college. This error must be carefully eliminated before safe conclusions can be drawn.

B. DOVETAILING COLLEGE REQUIREMENTS WITH ENTRANCE SUBJECTS.

1. CURRENT PRACTICES AND TENDENCIES:

a. *Closer cooperation between colleges and high schools.*

The growing tendency to have high schools accredited not by state universities but by state departments of education is rapidly doing away with what has been called college domination of high schools, and is producing instead a cooperative attitude between colleges and high schools.

With this growing tendency high school principals are taking a keener interest in recommending only suitable students for college. Colleges and high schools are working together in the development of courses of study in the various fields. It is becoming a common practice for colleges to report to high schools the quality of work done by the graduates of the given high school in at least their first year in college. High schools whose graduates fail to do successfully the work of the college are frequently removed from the accredited list.

b. *Practices in various subjects.*

While there are still many colleges whose requirements for graduation are made entirely independent of what the student brings from high

school, the tendency is markedly in the direction of making requirements for graduation in college a combination of high school and college work in most departments of study. As illustrations:

In English it is common to require in the freshman year a course in composition. This is frequently waived if the student brings 4 units of English from high school instead of 3.

In the foreign languages, the largest amount of dovetailing occurs. Nearly all colleges make their requirements dependent upon the units of foreign language offered for admission. For example, in Minnesota, a student must present for admission four years of one foreign language or complete enough of that foreign language in college to make with his entrance units the equivalent of twenty quarter hours, in the calculation of which one unit from high school counts as five quarter hours in college.

In Vanderbilt, if two languages, ancient or modern, are offered for admission, then one year in each of these languages must be taken in college. Or if only four units of Latin are offered for admission, then one year of Latin and two years of one other foreign language must be taken in college.

In the sciences the practice at Stanford is that nine units in biological science and nine units in physical science are required for graduation from college, but one of the sciences may be anticipated in high school, its equivalent being one unit in biology, physics or chemistry, or general science.

In Oberlin, the amount of science required varies with the science units offered for entrance.

Wellesley waives the biological science requirements if two years of satisfactory biological science or sciences are offered for admission and also waives the physical science requirements if two years of satisfactory physical science or sciences are offered for admission.

In social sciences, while not so common as in other subjects, certain variation is occasionally allowed students according to the amount of history and social science they bring from high school.

A practice in the University of Chicago deserves comment. Students who enter without certain elementary courses in languages, history, English and mathematics take the necessary courses not in college classes, but in classes conducted in the university high school. While their experience with the practice is brief, they report satisfaction so far.

2. OPINIONS.

There is a general approval of the closer correlation between high school and college work and a feeling that unity between high school, and especially the two first years of college, must be definitely established.

3. CRITICISM

The movement for dovetailing college requirements with entrance subjects has so far been primarily along the lines of avoiding duplication and securing a common body of knowledge. These two purposes are commendable, but before dovetailing can be really effective, agreement as to the essential functions of both high school and junior college work, if not senior college work, must be reached by both high school and college teachers. Thus, continuity will not be alone in subject matter, but in methods of teaching as well, making a single unit of this period of cultural education although done partly in the high school and partly in the college. This unity is so essential that it seems likely the junior college will grow as an upward extension of the high school, thus bringing under one organization the entire period of general cultural education.

4. NEEDED RESEARCH.

At what ages certain materials function best in the production of an educated citizenship needs to be determined.

The common remark that college chemistry departments would rather have a student come from high school without chemistry than with it needs to have its significance ascertained.

In what respects foreign languages can function effectively when begun at the various ages from babyhood to senior college needs to be studied, and also what the differences in methods of teaching are which must be used in attaining these different functions.

C. SPECIFIC COLLEGE COURSES REQUIRED.

1. THE THEORY OF FIXED CURRICULA.

Among the most significant tendencies of the day is the swing back from free electives to a measure of fixed curricula. The following quotations seem significant:

Dean Dymont, University of Oregon: "Three years ago the faculty was found to be fertile ground for the sowing of the seeds of 'the prescribed courses of study.'"

President Butler, Columbia: "It was manifestly impossible and undesirable for many reasons to reinstate the old prescribed program of studies. The world had outgrown it but the world has not outgrown and never will outgrow the principle on which that prescribed course of study was based."

For purposes of general culture, the demand for some method of avoiding the evils of free electives other than by the expedient of group requirements is manifesting itself in many places. There is a feeling that students need a "common intellectual world."

2. CURRENT PRACTICES AND TENDENCIES.

At Columbia University a common required course occupying one-third of the freshman year in Columbia is entitled, "Contemporary Civilization."

At Dartmouth, two courses, one on Problems of Citizenship, the other on Evolution are required of all freshmen.

At Grinnell freshmen are required to take a series of freshmen lectures constituting a survey of college life. A freshman introductory course in the History of the World and Man is elective.

At Minnesota an elective course known as the Orientation Course was offered in 1923-24, and is gaining steadily in popularity.

The University of Missouri was a pioneer in introducing a survey course required of freshmen.

These are adaptations of the idea that there should be a common body of knowledge more comprehensive in scope than such courses as English Composition, so commonly required, or a reading knowledge of French or German, required in a few colleges such as Reed.

Going much beyond the development of these single courses, however, is the tendency to make much more fixed curricula as presented in the Stanford junior college and the Yale freshman year. While some institutions, the University of California for instance, make no specific subject required for graduation, there is a noticeable swing in the direction of fixed requirements.

3. OPINIONS.

In the answers of alumni to the question, "Do you favor having a few basic courses such as 'Foundations of Civilization,' required of all students?" Three hundred seventy-seven, or 78%, answered "Yes." There was a note to the same effect running through the letters of the distinguished alumni.

College teachers see the great difficulties of offering so-called survey courses and tend in general to favor requirements selected from our present departmental offerings.

4. CRITICISM.

The difference in viewpoint between alumni and college teachers on the subject of the value of certain common courses is but an illustration of the fact that college faculties tend to view questions from the standpoint of organized bodies of subject matter, rather than from the standpoint of the educational needs of students. Probably the severest criticism passed upon college teachers by both senior students and alumni is represented in this.

The announced purpose at Yale in establishing the common freshman year puts first the securing of the "best teaching available"—"nowhere more essential than in the first year of college work." Expert teaching, with breadth of view as distinct from the profoundness of scholarship in some special field, is what is required to make these common courses function in the production of a better trained student body. At present, the dominant attitude of teachers of the elementary college courses (supposedly the general cultural courses) is that of laying the foundation for subsequent specialization in that given field. Teachers of general chemistry or general economics, for example, commonly direct their efforts toward those students who are expected to go on with additional courses in chemistry or economics, even though only a small fraction of the students in these general courses do go on. Some chemistry and some economics are essential as a part of the general culture of all educated people, but in order that this common requirement shall be met, it is necessary that the chemistry and economics for that purpose shall be taught by teachers who have this general function in mind.

5. NEEDED RESEARCH.

In these common required courses we have the most definite recognition found to date of the responsibility felt

by the colleges for producing an effective high-minded citizenship among intellectual leaders. Steps should be taken to evaluate the success of these courses from the beginning in terms of the above objective. At this point is where tests of other than the information type are needed, and research in the development of sociological tests will aid greatly in guiding the movement represented by the introduction of common courses for freshmen.

D. METHODS OF SECURING BREADTH OF TRAINING.

1. SIGNIFICANT PRACTICES AND TENDENCIES.

Although colleges are stating their requirements for graduation in more specific terms than formerly, practically the universal way of securing breadth of training is by requiring a stated number of courses or credits taken within the several groups of studies offered. This practice is called "group requirements."

Various colleges group their offerings in from three to eight or more groups and then require either a given amount of work from each group or from a certain number of a larger list of groups.

Baker requires six semester hours from each of six groups elected from a total of eight groups. This (or five hours instead of six) is a common practice among the colleges of the North Central Association of Colleges and Secondary Schools.

Minnesota has but five groups and requires fifteen quarter credits in the English-rhetoric; twenty quarter credits from one foreign language group (reduced by entrance units in the same language to the extent of five quarter-credits for each entrance unit); ten quarter credits from one of the social sciences, and ten quarter credits in one of the natural sciences. There is no requirement from

the fifth group which includes architecture, mathematics, music and philosophy.

In many of these group requirements the work of high school and college is considered together. Almost every conceivable combination of subjects will satisfy the requirement for breadth of training at some colleges. People may graduate without having had any contact with foreign languages in either high school or college, while in other places specific requirements of both ancient and modern languages to the extent of one fifth of the work of both high school and college are demanded. In some institutions no laboratory science, or, at most, one high school unit of laboratory science is required in high school and college, together, while in other colleges fairly extensive contact with both biological and physical sciences is required.

In fact, while it may be said that group requirements assure acquaintance with several different fields of culture, it must be admitted that no particular subjects are universally regarded as essential for breadth of training.

2. OPINIONS.

Considerable light is shed upon this subject by the answers which alumni gave to the two following questions:

1. What courses did you take in college which you would not take now if you were just beginning your college course?
2. What courses would you take in place of the above?

Five hundred sixty-seven courses were named in answer to the first question and six hundred forty courses were named in answer to the second question. When these answers are grouped we find that:

96 times some ancient language would be omitted and
15 times it would be taken in place of some other subject.

- 89 times mathematics would be omitted and
26 times it would be taken in place of some other subject.
- 124 times some modern language would be omitted and
79 times it would be taken in place of some other subject.
- 60 times some physical science would be omitted and
66 times it would be taken in place of some other subject.
- 31 times some biological science would be omitted and
55 times it would be taken in place of some other subject.
- 41 times some English subject would be omitted and
85 times it would be taken in place of some other subject.
- 19 times philosophy and psychology would be omitted and
52 times it would be taken in place of some other subject.
- 76 times some history or social science would be omitted
and
213 times it would be taken in place of some other subject.

For details of these group summaries, refer to Appendix B.

There is light also shed upon the question of the value of different courses by the answers to the following question:

"Leaving out the courses which have been of distinctly practical or vocational value, recall the college course which you prize most highly of all the courses you have studied?"

To this question 409 answers were given by alumni. Of these 409 courses mentioned

- 23 were in ancient languages
- 33 were in biological sciences
- 114 were in English
- 99 were in history and social sciences
- 12 were in mathematics
- 9 were in modern languages
- 61 were in philosophy and psychology
- 27 were in physical sciences
- 31 were in other subjects.

The same question was also answered by 249 seniors.
Of these

- 7 were in ancient languages
- 20 were in biological sciences
- 79 were in English
- 58 were in history and social sciences
- 2 were in mathematics
- 6 were in modern languages
- 46 were in philosophy and psychology
- 14 were in physical sciences
- 17 were in other subjects

In order to get a better line on the significance of the above figures we must note the relative numbers majoring in the various fields. While these numbers do not correspond with the above numbers, they represent the entire list of those indicating their major studies. The proportion, therefore, cannot be far wrong. The total number of alumni stating the departments in which they did their major work was 543. Of this 543

- 37 majored in ancient languages
- 25 majored in biological sciences
- 109 majored in English
- 171 majored in history and social sciences
- 27 majored in mathematics
- 55 majored in modern languages
- 22 majored in philosophy and psychology
- 32 majored in physical sciences
- 65 majored in other subjects

There were 369 seniors who indicated their major subjects and of these,

- 7 majored in ancient languages
- 5 majored in biological sciences
- 100 majored in English
- 120 majored in history and social sciences
- 13 majored in mathematics

32 majored in modern languages
19 majored in philosophy and psychology
15 majored in physical sciences
58 majored in other subjects.

3. CRITICISM.

The above figures seem significant from two points of view:

1. The relatively large number of students electing the studies dealing with social problems, such as English literature, history and social sciences, philosophy and psychology.
2. From the standpoint of the relatively high value attached to these courses and the natural sciences.

For example, the ratio of the number of times which a favorite course falls in a department, to the number of times which alumni or seniors majored in the same department, is a sort of index of the value attached to work in that department in the minds of alumni or seniors. This ratio ranks for alumni from 0.16 in modern languages to 2.77 in philosophy and psychology; and for seniors from 0.15 in mathematics to 4.0 in biological sciences. All the subjects ranging between these two extremes show relatively less appreciation of courses in foreign languages and mathematics, with relatively greater appreciation for studies dealing with natural sciences and the social sciences. This order of departments suggests that probably for students of college age subjects, which answer primarily as tools, do not stand high in esteem. College students pursuing non-vocational courses are of the age to be interested in the realities of the natural world represented in the sciences, but their major interests are in those aspects both of the natural sciences and the social sciences dealing with the problems of human relationships.

It is fair to question, therefore, whether in establishing

group requirements, for the purpose of securing breadth of training, subjects which are of value primarily as tools for the mastery of something beyond should be continued longer among the groups. These tools may be needed, and if so, they should be required as the need dictates. To class them as cultural and require a certain amount of them as a part of a general cultural education is open to serious question.

This general conclusion is borne out by conferences with senior students, as well as by the relative infrequency with which both alumni and seniors report that their best college teacher was a teacher of these tool subjects. Reference to the statistical tables in the Appendix B, page 183, will reveal the extent to which this discrepancy in subjects is revealed. Although the requirements in foreign languages and mathematics are decreasing somewhat, they still occupy a very considerable share of the required time of college students in most colleges.

Mathematics is usually grouped either with certain natural sciences or with philosophy and is, therefore, specifically required to fill group requirements in far fewer colleges. It is made a prerequisite not only for professional study in engineering but for students majoring in certain sciences, notably physical sciences. For this use as a tool there can be no criticism. It is still retained, however, as a specific requirement in a considerable fraction of the colleges, and this practice may be seriously questioned.

Attention may be called here to the requirement still maintained in a number of colleges such as Harvard, Reed and Wellesley, for a reading knowledge of at least one foreign language as a requirement for graduation from college. Here, again, it should be said that if the pursuit of the studies required in other fields calls for this tool,

no other justification is needed. The assumption seems to be, however, that this reading knowledge will result in a common use of the literature found in these other languages, and that this use of literature in some other language will not only broaden the social sympathies of students, but broaden their understanding and culture as well. Such inquiry as there was time to make concerning this assumption would not bear out its truth, but it is fair to acknowledge that the inquiries were too limited to justify denying it.

Whether college practices shall tend in the direction of the establishment of specific courses in the various fields to insure breadth of training or whether they shall continue in the use of group requirements will depend upon the functions for which the common requirements are established. If it is agreed that a common body of knowledge of the world's culture is necessary, then fixed curricula will grow. If, on the other hand, these subjects are primarily instruments for the establishment of certain mental and social traits and points of view, then the fixed curricula are not so necessary as is a corps of teachers of college subjects who see the subject matter of courses as a means, rather than an end. If this latter point of view be accepted then, whether we shall have fixed requirements or group requirements depends upon whether a body of teachers can be qualified more effectively to teach the wide range of subjects found within the highly differentiated departments composing the present college groups, or whether this superior teaching can be developed with a much more limited number of subjects as would be found if specific courses were required. At any rate, the decision will hinge upon superior teaching, rather than upon finely differentiated fields of subject matter.

At this point the question must be raised as to whether

the function of the first two years of college, which are spent mainly securing this breadth of training, is more closely allied with the function of the senior high school or more closely allied with the two later years of the liberal arts college. In the upper division of the college, the chief function is specialization, and, to be sure, some foundation for this specialization must be laid in the lower division of the college. But the big purpose of the lower division is broad general education, almost identical with the function of the senior high school. Practically all college teachers with whom this question was raised acknowledge the essential unity of the cultural studies of the senior high school and the general training contemplated in the group requirements of the lower division of the college. This unity carries over into methods of teaching, as well as into the subjects taught. Furthermore, the typical ages of students in these two parts of our educational system suggest the essential unity. In the senior high school, 15 to 17, and in the lower division of the college, 18 and 19, are five years with no psychological reason for division.

Twenty years (or earlier if we can safely abbreviate earlier education), the beginning of the period of specialization, may well be the dividing line, not only in the subjects taught but in the methods of teaching used. A vocational purpose may well be assumed at this point and colleges organized accordingly. Whether the curriculum be a professional one in law, engineering or medicine, or a non-professional one in any specialized field, such as physics, history or psychology, the point of view both in teaching and in selection of subject matter may well be the same.

4. NEEDED RESEARCH.

The questions raised in the criticism offered above are many. The fundamental question has to do with the length

of time our American system of education can count upon students spending in the pursuit of general culture. In this connection reference is made to the report of the Committee of National Council of Education on "Economy of Time in Education," Bulletin 38, 1913, United States Bureau of Education.

The following problems may be cited as calling for investigation:

1. A sociological investigation into the significance of entering professional life at an older and older age, as is the present tendency, is much needed.
2. Investigation concerning the actual use which students make of the required reading knowledge of a foreign language, both in college and in later life.
3. The value of foreign language as an aid to English.
4. The value of mathematics as a training in such general attributes as exactness, respect for truth, logical methods of thinking, etc.
5. Whether a common body of knowledge or a wide list of choices, allowed in the plan of group requirements, aids the better in the establishment of college spirit and scholarship.
6. The relative cost of maintaining a series of smaller junior colleges in connection with superior senior high schools and of maintaining the same instruction at a central university.
7. The relative merits of the opportunities in other respects than teaching afforded by the small college, as compared with these opportunities in a large college or university.

E. SPECIALIZATION.

1. CURRENT PRACTICES AND TENDENCIES.

There seem to be two somewhat conflicting purposes offered in justification for specialization in college work:

- a. That intensive study of some field is necessary as a general training.

- b. That specialization has directly or indirectly a vocational purpose.

This division is somewhat coexistent with privately controlled colleges on one side and publicly controlled colleges on the other, although there are numerous exceptions. Probably in no instance is there a clear and distinct line between them, each college, if not each department of specialization, being conscious to at least a small degree of both purposes.

- a. *The major sequence and minor sequences.* In most cases the requirements for specialization are stated in terms of so many courses or so many credit hours within a given department, or closely related departments. The courses are limited to those above elementary grade or those in the upper division of the college. This general requirement is ordinarily satisfied in from 15% to 25% of the four years' work required for graduation.

This is supplemented frequently by one minor or by two minors of from half to two-thirds as great an extent as the major. Occasionally, the second minor is required to be in a group outside the group containing the major department. The general practice is to allow considerable variation in departments and to allow considerable responsibility to the head of the department in charge of the major sequence.

It is true in some cases that if courses open to freshmen are taken as a part of this major or minor requirement, they count as only a fraction of the value at which they are listed in the catalog.

It is common, furthermore, to limit the amount of work taken within a given department or a given group to a certain maximum. This indicates the feeling that breadth

of culture also continues as a function through the upper division of the college.

Space will not allow illustrating the infinite variety of regulations governing this specialization.

b. *A field of concentration.* Differing from the general plan of major and minor sequences is the more recent development of so-called fields of concentration. These fields of concentration, while usually stated in terms of courses, approach the idea of a curriculum, reaching out into almost any field for the necessary study.

This flexibility extends in some cases, as at Reed, to a mapping out for each student separately whatever group of courses may best meet his requirements. The essential idea is not specialization within one or two or three departments with the idea that an increasing degree of advancement in the knowledge of those subjects shall be assured, but rather an understanding of a given field is the goal. For this understanding, contact with many related subjects chosen from many departments is required.

Having a field of concentration, rather than a sequence of courses, calls generally for a comprehensive examination given at the conclusion of the study, which examination is intended to test the students' mastery of the field including all the supporting courses, no matter out of what department they may have been taken. Harvard's practice in working up these concentration examinations in a number of groups of departments is one of the interesting developments of the modern college. Certain members of the faculty, who are charged with the preparation of these examinations at Harvard, are allowed a time allotment for the task equivalent in some cases to half time for a semester. Recognizing in an examination the unity of a field of concentration which overlaps several college de-

partments of instruction, is no mean task for most college teachers.

Adopting this less formally organized field of concentration and depending less upon the completion of individual courses is calling for a new type of instruction in which some instructor, who understands in general the scope of this field of concentration, has to aid a student, not only in mapping out the general courses necessary to cover this field, but also by tutoring him in connection with other materials not in the courses but serviceable in the comprehensive study which the examination will call for. Thus, there is developing a tutorial method of instruction along with these fields of concentration. This is another most interesting development at Harvard in late years, although it must be remembered that many colleges, Harvard included, had made much use of the tutorial method of instruction in the early period of their history.

c. *The specialized curriculum.* Among the difficulties which colleges of liberal arts have always experienced in offering mainly courses which have no immediate vocational purpose, is to find a motive for study sufficiently strong so that the very purpose which colleges hope to attain is not defeated by the inculcation of lazy intellectual habits among students. It is commonly admitted that students in the college of liberal arts lack the definiteness of purpose in their study which characterizes students of law, engineering or medicine. Partly in the hope that a more potent motive for study may be secured, certain colleges are adopting curricula approaching in their definiteness the requirements of the professional schools. For example:

Oregon University now publishes no major sequences but lists for each department a curriculum including the work from any other departments required of students specializing in a given department. This goes one step beyond the

field of concentration in so far as the per cent of student's time required in definite courses is concerned, but differs from the field of concentration in that the responsibility for mastery is not lodged in one person, who directs the entire study, but is still with the various teachers who teach the courses which make up the curriculum. Therefore, a student who passes the several courses is entitled to his degree without any comprehensive examination. Neither is any tutorial instruction necessary in this scheme any more than it is in colleges using major sequences.

In the University of Minnesota there is a special school of chemistry. This allows the chemistry department to determine the subjects in other departments which shall be required for graduation by a student specializing in chemistry.

In the University of Washington the college of sciences has ten different curricula mapped out, going into considerable detail in all the courses required.

It will be recalled that this was, from the beginning, the plan of Stanford University, where a student registered in a given department of instruction and that department controlled his entire registration in all departments of the University. Three years ago a junior college organization was adopted there with a more or less fixed curriculum for the first two years.

California University gives to each department considerable liberty in requiring courses from any other department in the University before a student may graduate with a major in the given department.

The University of North Carolina recently inaugurated a curriculum in the humanities with fairly fixed requirements.

2. OPINIONS.

In respect to the establishment of specialization curricula around each college department, Dean J. G. Brandt of the College of Liberal Arts, the University of Kansas, sent out a letter to the deans of the Mid-West Conference, in 1921,

asking for their opinions as to the desirability of establishing such curricula. An examination of the replies indicates that opinions range all the way from definite opposition to specialization curricula to an advocacy of a wide extension of the idea to as many curricula as can properly be outlined among the college departments. The majority in 1921 were somewhat reticent about going very far in the direction of establishing specialization curricula.

The following question was among those asked of the list of distinguished alumni—"Is extensive specialization for some vocation desirable in colleges of arts and sciences?" Thirty-five answered the question directly and a good many others discussed the subject rather freely. Of these 35 who answered the question directly, 27 said "No," 4 said "Yes," and 4 qualified their answers.

These answers, as well as most of the general discussion of the question, reveal that specialization for a vocation, while frequently done within the organization known as the College of Arts and Sciences, is to a large extent a separate function and should not be confused with the general cultural training which is the primary outcome of the work of the college. That is to say, if experience should prove that both materials and methods which prepare for the non-vocational side of life need to be different from those which prepare for the vocational side of life, the college should see first to its maintenance of materials and methods non-vocational in their function.

One of the questions most frequently raised in conference with college teachers had to do with the difference, if any, which was recognized between cultural and vocational courses. While no tabulation of these college teachers' opinions can be made, it became quite evident, as these conferences proceeded, that these teachers recognize that the vocational function probably calls for a different cur-

riculum organization from that which is best for the cultural function. It is recognized, too, that in our present system of major and minor sequences the cultural purpose has dominated our scheme, while the vocational purpose is the one actually present in the minds of many students. This inconsistency is generally recognized among college teachers.

Among the questions addressed to alumni was this: "Would you advise more specialization or less than you had?" The question was answered by 313 alumni and of these 39% would advise more specialization and 25% would advise less, and 36% would advise no change in amount of specialization. Of course, these replies must be viewed in the light of the extent of the major which each individual pursued. Too few of the alumni who answered had distinct recollection of the extent of their major study to make tabulation of this part of the question useful. Therefore, whether they would advise more specialization or less must be thought of only in connection with the general average major as it existed in the colleges between 1910-14. It must be borne in mind, too, that the students think of specialization considerably more largely than do the faculty as vocational in its purpose. Therefore they feel the need for extensive specialization, believing that it is the purpose of their college work to prepare them for their vocations.

3. CRITICISM.

The theory of major sequences has its justification in the belief that the intensive study of some field is a necessary part of the training of a cultivated man or woman. The vocational function of the college, if it be accepted as sound, calls for a different organization of the work of specialization. Even if it be granted that botany is the

basic department in preparing for landscape gardening, we should still not accept the view that a sequence of courses in botany prepares for landscape gardening. Instead, we should hold that certain courses in design, in surveying, in art, in sanitation, etc., are as necessary as a thorough knowledge of trees and shrubs. In other words, to prepare for landscape gardening, we need a curriculum calling for courses in any number of departments of instruction, put together in such a way as to secure the best understanding of the problems that a landscape gardener must face.

It seems likely, therefore, that in those colleges which believe that a four year course of study above high school should be maintained for general culture without any vocational purpose, specialization may properly be had through major and minor sequences, with increased use of fields of concentration. No particular break is demanded between lower division and upper division work. In those colleges, however, which acknowledge that their specialization is largely for the purpose of vocational training, the plan of curricula for the various vocations should replace the present common arrangement of major and minor sequences.

This conflict of purpose is what has operated to the embarrassment of many colleges of arts in the development of their teacher-training functions. College faculties have been slow to acknowledge the distinction between the preparation of the student for teaching in the high school and the cultural requirements held for graduation from the college. This has led to the development of schools or colleges of education as curriculum building institutions, rather than of education as a department of instruction within the colleges of arts and sciences. In many cases, more than half the graduates of arts colleges enter at once into teaching, yet the colleges hesitate to acknowledge them-

selves as teacher-training institutions in a vocational sense.

In the same way, we have growing up schools of chemistry, schools of physics, schools of social sciences, and the like, and this movement has been interpreted by some to mean the disintegration of the college of arts and sciences. If my hypothesis is correct, the disintegration of the senior college, which acknowledges a strong vocational purpose, will be checked by its incorporation within its own organization of a group of curricula preparing for those vocations success in which calls for a high degree of general culture and only a relatively small degree of specialization.

While physicians and lawyers and engineers require such an extensive specialization that separate schools may be their best solution, yet chemists and physicists and bacteriologists and teachers of English and newspaper writers and dramatists and foreign consuls and scores of other vocations demand, first of all, wide cultural training, and yet demand very specific vocational training as well. It would be an unwise educational organization to have separate schools for preparing for each of these vocations. Instead, the college of arts and sciences, which recognizes specialization as legitimately vocational, should organize large numbers of curricula, not built primarily on major sequences, but built instead upon the offerings of all the departments of instruction.

This suggests again that where specialization is to be primarily for vocational purposes, no set standard in terms of so many hours in the major subject as a requirement for graduation can hold alike for all fields of specialization. It may well be that adequate specialization for some callings can be had in the work of one semester, while specialization for other callings may require the work of several years. Many college teachers suggested in this respect that American education has long been hampered

by the tradition of a four years' course into which all sorts of purposes were made to fit. If the function of specialization is more clearly defined for each individual calling, it is quite likely that curricula of varying lengths will come to be the prevailing practice in colleges of arts.

For those students who can afford to take four years of cultural training before entering upon any vocational curriculum there should be the freest possible opportunity in our system of American education. On the other hand, it seems likely that the American school system will have to be built, at least in tax supported institutions, on the assumption that the student body, as a whole, will complete its general training at the end of a given period. It will be assumed that from that period on, the purpose of the student in further attendance at college will be dominantly vocational and the materials and methods to be used in the later periods will be selected accordingly.

While further investigation needs to be made to answer the question how long that period of general training should be, the present tendency of college organization to divide the college into a lower division and an upper division indicates a clear trend toward concluding general cultural training at the end of the present sophomore year and beginning specialization, whether avowedly vocational or not, at that place. If this is correct, graduation from the lower division of the college should be given a very much more prominent place in our scheme of education, thus making it appropriate and easy for those who wish to proceed with vocational training of the sort, not available in college or university curricula, but available instead in apprenticeship in different lines of work, to enter at once into that apprenticeship, feeling that they had rounded out the general training for which they went to college.

In like fashion, the senior college should then be or-

ganized to perform the functions of specialization and should adopt curricula and methods of teaching appropriate thereto. The various curricula would establish their respective requirements for admission and graduation in the light of their acknowledged function. Methods of teaching, systems of marking or grading, regulations of outside student activities and the like, could and should then be built on the assumption that the student in any of these curricula, the same as in law or medicine, has a motive for study, genuine enough to make unnecessary all the artificial incentives at present dominating college practices.

The question will undoubtedly be raised by many as to the effect of this sort of organization upon the work of the graduate school. The answer seems to me very simple. If a student, completing the lower division of the college, starts out to become something of a master of the field of history or geology with the notion that he would like to follow a scholarly pursuit in any such field and that he would hope to make some contribution through research to the knowledge within that field, surely the courses leading to that mastery and the methods of teaching most likely to aid in successful research, would fit well in the proposed scheme of specialization. What college teachers now criticize even when students pursue an abundance of courses within a given field and those in proper sequence within that field, is that the students still do not develop scholarly habits, neither do they develop taste for nor ability in research within that field. In other words, our present college plans do not function properly in preparing for graduate study. A specific purpose of a student, at the time of beginning specialization to become a master within a field, would lead to the adoption within the senior college of the sort of courses and methods which would foster advanced study.

4. NEEDED RESEARCH.

a. What aspects of the various vocations can best be prepared for in college and what can best be done in connection with the vocation itself? For example, just how much preparation for banking can best be given in courses and how much of it can best be given in apprenticeship in some bank. We hear now and then from bankers murmurs to the effect that what they would like would be to have a young man trained in certain mental habits and in certain fundamental conceptions concerning economics, but to leave the subject of banking to the bank itself where the young man starts his apprenticeship.

b. What is the comparative value for cultural purposes of (a) specialization study in one field; (b) less advanced study in several fields? That is, in a college, claiming no vocational purpose in the upper division, what is the educational significance of specialization?

c. What types of specialization curricula should lead to the bachelor of arts degree? For example, should curricula for the training of high school teachers of English be a part of a college of arts, or a college of education?

F. VARIATION IN REQUIREMENTS FOR STUDENTS OF VARYING ABILITIES.

1. CURRENT PRACTICES AND TENDENCIES.

America boasts a public school system open to every child from kindergarten through the university. This is a proud boast and one which the country may well make great sacrifices to attain. However, educators dare not close their eyes to the problems such a policy raises. Among these, the most significant is the tendency to set our educational machinery to the pace maintained by the average student. Those who deviate from the average suffer some-

what in consequence, probably in about the proportion of their deviation.

Along with this tendency has been the tendency to stress the needs of the inferior students who have hampered somewhat the pace set even for the average. Relatively little attention has been given to the injustice done to the superior students, but within the past decade a better opportunity for the superior students has begun to appear in a considerable number of American colleges. Canadian colleges have for a long time followed the custom of having "pass courses" and "honor courses," dividing their students into two distinct groups, one group trying for a pass degree, and the other trying for an honors degree. While certain subjects have been common to these two student groups, many subjects which are available for honor students are not available for pass students. Even where the two groups of students study the same subject oftentimes the requirement for honor students is higher than the requirement for the pass students. At Queens University, Kingston, Canada, and at the University of Toronto, this distinction in the two groups of students extends even to the different requirements for matriculation.

In the American colleges these different curricula are beginning to appear, but they are taking the form of a different method of study, as well as a difference in subject matter, and it seems best to reserve the treatment of this important subject for the chapter on "Methods of Teaching."

Reference should be made, however, to the tendency for example, in Minnesota, to allow superior students to enter certain courses, notably seminars, into which the average student is not admitted. Similarly, in California University, certain courses are available to students enrolled for honors which are not available to other students. In fact,

even though official recognition is not given to this distinction in a great many cases, it is unofficially provided for in a large number of colleges.

One other variation in curriculum in recognition of students of varying abilities deserves mention. In Oberlin College, a candidate for graduation with honors is required to complete 10 semester hours in the major subject without credit in addition to that required of the ordinary student.

2. OPINIONS.

There is an almost universal opinion among college teachers, as well as college seniors, that our present college plans operate at a sacrifice for superior students. "Mass education" has come upon American colleges so rapidly that suitable adjustments have not yet been made to the varying needs of students of varying abilities.

3. CRITICISM.

Almost all other countries, including those of Europe, depend upon a system of education of two distinct types, one for the masses and the other for prospective leaders. In the American scheme of education, with the system of schools and colleges common to all the people, a way must be found to develop to the highest point of their capacity the leaders in the various fields. Democracy, more than any other form of government, requires high-class political leadership, because in a democracy this leadership has to attain to recognition on its own merit and has to make good its claims in the face of wide-spread potential opposition. Any educational system that tends to leave undeveloped the potential leadership of the people cannot long serve a democracy.

Therefore, one of the most urgent questions before educators today is how we may conserve the essential essence

of the common school system and yet give to those of superior ability a chance to develop to their highest possible level. The movement, therefore, just getting under way at present in American colleges of making distinct opportunities for superior students, is a movement of great promise.

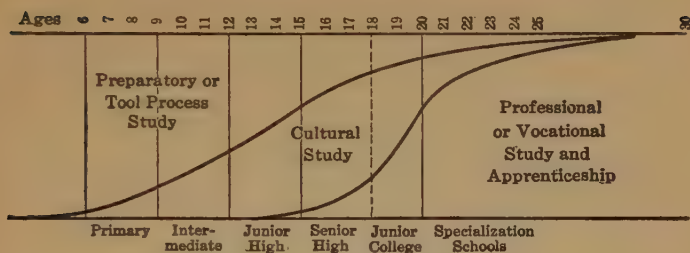
G. SUMMARY.

Investigation, both as to the aims and practices of American colleges with reference to curricula, tends to show that the curriculum is distinctly of a threefold nature.

1. The mastery of the tool processes required in learning.
2. The cultural or non-vocational aspects dealing with helpful citizenship and leisure.
3. Vocational aspects having to do with making one's living.

These three purposes are not entirely mutually exclusive and the age at which each should be begun and the length of time that each should continue may well vary according to the individuals concerned. The school system as a whole, however, must take into account the extent to which these various aspects can be pursued in keeping with present day social demands. Inasmuch as different methods of teaching are most effective for these three aspects according to the motive which actuates the student in his work, fairly clear distinction as to which one of these aspects operates with reference to a given course is important.

As suggestive of my own conception of the way in which these three aspects overlap and the approximate extent of emphasis which properly belongs to each aspect at the various ages, I shall submit the following diagram:



There is a tendency to place more emphasis upon native ability and strong character and less upon detailed subject matter examinations for admission to college. Closer co-operation between high school and college is developing with a marked tendency to state graduation requirements from college in terms of the combined high school and college course. Breadth is secured by group requirements, mainly, with a relatively few fixed requirements, but a movement is well under way to require certain common courses of all students. Concentration or specialization is finding expression in the multiplication of schools split off from the college of arts, in major sequences, in fields of concentration, and in curricula within the senior college. The question of vocational versus cultural function of the specialization study is still troublesome. Variations in opportunities and requirements for students of varying abilities are appearing in many places.

CHAPTER IV

EDUCATIONAL GUIDANCE OF STUDENTS

INTRODUCTORY STATEMENT.

Educational guidance in one form or another has had considerable vogue in the past decade or two in the public schools. Counsellors have been chosen to advise with students about all sorts of problems both outside and inside their regular course of study. There are in many high schools, and in most of the larger colleges, Deans or advisers of women, and in a considerable number of colleges, deans of men, whose functions are to help in avoiding waste in student efforts. These offices have developed because of maladjustments between the school work of students and their natural abilities and tastes, or because of difficulties and perplexities encountered by students in their own personal lives which interfere seriously with their progress. It is practically universally conceded now that such informal help is a genuine educational service.

Along with this has grown up the feeling that much could be gained by more completely substituting a careful consideration of the student's individual problems with reference to his studies for the too current red tape, regulations, and requirements. Accordingly, academic advisers have multiplied of late until now many colleges have assistant deans under various names whose business it is to look after these adjustments in students' work so as to decrease the loss and improve the standard of academic efficiency.

In spite of this promising development it must be acknowledged, however, that educational institutions are still giving far less attention to this aspect of their administration than are industrial institutions which have equivalent investments, as evidenced by the extensive personnel departments and research laboratories maintained.

This function of the college seems so important that it has been made a matter of special inquiry. The report will deal with four phases:

- a. Determining the amount and character of work carried.
- b. Counsel and guidance of freshmen.
- c. Counsel and guidance of students above freshmen year.
- d. Vocational guidance.

1. CURRENT PRACTICES AND TENDENCIES

A. DETERMINING THE AMOUNT AND CHARACTER OF WORK CARRIED.

(1) *In general.* Of course, the normal amount of work expected for each year is represented by one-fourth of the amount required for graduation in a four year course. The maximum and minimum allowed fall usually within twenty per cent above or twenty per cent below this normal. Thus, 18 credit hours is the common maximum, and 12 credit hours the common minimum with 15 credit hours the normal load. The discussion of the bearing of poor or good work by students upon the enrollment load allowed is reserved for the chapter on Measuring the Achievements of Students.

There are interesting variations in practice bearing upon student load. In North Carolina, for example, nearly all freshman work is in full courses and students are expected

to take only three courses at a time. In many other institutions subjects are heard fewer times per week and students are expected to take, say, five courses. This would not seem worthy of mention here were it not for the general feeling which prevails among both students and teachers that five three-hour courses tend to be considerably more time consuming than three five-hour courses, and in many reports are claimed to be less effective.

Another variation in practice is worthy of note. Perhaps the majority of institutions limit freshmen and sophomores to a smaller number of credit hours per semester than are allowed juniors and seniors but a considerable number of colleges reverse the practice and limit juniors and seniors to a smaller number of hours than are allowed freshmen and sophomores. The theory offered in these institutions is that the advanced work required of juniors and seniors is considerably more difficult even for juniors and seniors than are elementary courses for freshmen and sophomores. An interesting problem is present in this assumption. This question of determining the student load calls up the wide difference in the amount of time which students are required to put upon different courses to earn a credit hour. The student's program is always in terms of courses or credit hours, whereas it is generally conceded by both teachers and students that fifteen credit hours in certain courses require no more time than ten credit hours in certain other courses. To get a little more accurate data on this point, all the students in the University of Kansas were asked to fill out a card in connection with their registration routine in the fall of 1921. This card asked them to list the courses they had pursued the spring term previous, and to give after each course an estimate of the total hours per week they spent on the average in all the work connected with the course, recitation or lec-

ture, study, writing papers or notebooks, doing laboratory or field work, etc.

With these cards turned in, the time estimates per course were reduced to the credit hour basis, then assembled (1) for each course; (2) for each teacher, and (3) for each department. Calling the median department 100, four departments fell below 85 and four others above 130. Of course, the spread between courses and between teachers was even much wider.

The chance of great error in any individual student report is recognized. But when all the reports are assembled the relations among the time requirements of large groups, like departments, cannot be far from the truth. If that is granted, then twenty credit hours in some certain departments would not be a heavier load than 13 credit hours in certain other departments in Kansas. From reports of students in many colleges and from the careful, but unpublished, studies made by Professor R. V. Strickland of the State Agricultural College of Manhattan, Kansas, I think the above variations are not exceptional.

The purpose of reporting these studies at this point is to call attention to the urgent need of defining the "credit" in such a way that the program load can be more fairly determined.

(2) *Factors conditioning limitation on amount enrolled for.* While the commonest criteria conditioning limitation of amount of work are grades received in the immediate past term or in the several past terms, account is being taken more and more of other factors in the case. Here a number of colleges are making fairly extensive use of the results of intelligence tests on the theory that superior students are frequently not making good grades because of the development of lazy intellectual habits, whereas, if an increased schedule would tax them more, probably all of

their grades would be improved. At any rate, more and more weight is being given to the notion that an average grade earned by an average student should not be treated the same as an average grade secured by a superior student. Rather, if we are to secure the best intellectual training we must first be sure that each student is giving his best effort to the mastery of his course and that account must be taken of effort quite as much as results in the counsel and guidance of students.

(3) *Methods of administration.* In general, the administration of regulations concerning limitations of program is in the hands of the dean or a faculty committee. There is a growing recognition, though, of the place which deans of women and deans of men can fill in this administration. The chief requirement is that some office shall be the depository of all the information needed to determine the limitation of program of each student and that that office shall then be charged with administering the regulations. The amount of information found at present in such offices varies from nothing except the student's verbal report at enrollment time, to a complete cumulative account of the student's activities, not only in college but before entering.

Dartmouth is undertaking a very interesting experiment in the development of this sort of personnel office, under an officer whose title is Director of Personnel Research. This office is being charged more and more with approval of student programs, because in this office are assembled all sorts of data bearing upon student interests in both high school and college, the achievements in college in non-academic as well as academic activities, the personal problems which students struggle with, and the like. Of course, an important part of the data in the office is made up of the results of intelligence tests and the estimates

of the faculty members on qualities of character, as well as intellectual abilities. On the basis of all these data, this office is held to be best qualified to advise a student, not only as to his curriculum in general, but as to many of the details concerning courses from which he might profit most.

Mention should be made also of the use of a psychiatrist at Dartmouth, who in a fatherly sort of way but with the aid of careful psychological and medical training, gets into many of the troubles which afflict students' minds and either relieves them or recommends certain remedial action on the basis of his diagnosis. This psychiatrist has up to date been only on part time service at the college but President Hopkins asserts that he would like to have such an official on full time and believes there would shortly develop sufficient demand for conference among the two thousand men to keep an official of this kind fully occupied.

B. GUIDANCE OF FRESHMEN.

(1) *Helpful information concerning the student before he enters college.* The most difficult aspect of advising college students is found when students first come to college from high school. To make that step as easy as possible and to make the break as gradual as possible, is the function of the college. Therefore, colleges are paying considerable attention to information which they secure concerning the student before he comes to college.

Not so long ago practically all that was asked was the grades made in examinations on required subjects for admission. Now, while it is still common to record grades made in subjects studied in accredited high schools or grades made on examinations, there is a growing emphasis

upon information other than the subjects pursued in high school. For example:

A number of institutions require a health certificate signed by a physician. Unfortunately, the institutions report little attention to these health conditions by those charged with educational guidance.

In Vanderbilt, and many other colleges, the high school principal is asked to submit a recommendation covering a large number of aspects of the student's character. This is not a requirement for admission, but is designed to help the college advise the student most wisely.

Grinnell requires also an analysis by the student himself of his other activities outside of high school and what his inherent interests are. This information is placed in the hands of advisers who undertake to capitalize it, not only in guidance concerning program of studies but also as guidance in other activities.

(2) *Methods of enrolling.* In some colleges where the freshman requirements are largely fixed, freshmen enroll in their courses by mail before entering. This is done by correspondence through the Dean's office. The common practice, however, is for freshmen students to appear at the college and on a day set apart for the purpose confer with members of the faculty concerning their enrollment. These members of the faculty, officially designated as advisers, sign the student's enrollment card as an indication that such a conference has been held and that the student's enrollment is satisfactory.

Two opposing tendencies are developing with reference to these advisers. In one group of colleges large numbers of the faculty are assigned to this work with the idea that each one will have a small group of advisees and can take a more personal interest in each one. Another group of colleges is tending to use a small number of advisers with

the idea that such advising calls for interests and training which are not present in any large number of college teachers. These few advisers give relatively large amounts of time to the task and are sometimes relieved accordingly from a certain fraction of the teaching load.

It is quite common that freshmen must pass a physical or medical examination, or both, early in the freshman year. It has come to be fairly common also that psychological tests are given to all freshmen either at the time of enrollment or sometime early in the term. No very definite administrative use is made generally of the body of data thus collected except the notification to student and parent of serious physical defects and in some cases the requirement of corrective physical training. Informal use is made of results of psychological tests in determining the treatment of failures, requests for exemption from regulations concerning the student's program of studies, and the like.

As a more accurate quantitative study of certain practices, it seems worth while to report here a summary of answers to a questionnaire sent out to enrolling officers in a large number of state universities in the spring of 1923. (The questions are clearly implied in the answers as here recorded.) The summary was made by Associate Dean P. B. Lawson, University of Kansas.

Replies received from thirty universities, including South Dakota, Idaho, Wyoming, Oklahoma, Cornell, Mississippi, Montana, Arizona, Oregon, Kentucky, Maine, California, Nevada, Colorado, Indiana, Washington, Vermont, Nebraska, Minnesota, Texas, Illinois, West Virginia, Iowa, Tennessee, New Mexico, South Carolina, North Carolina, Wisconsin and North Dakota. Replies were usually sent by the Registrar.

1. For admission to the University, Montana and Georgia alone require high school diploma.
Arizona and Nevada require certificate of graduation.
All require transcript of high school subjects except Georgia.
Twenty-three require grades in high school subjects.
Eighteen require recommendation of high school principal, most of them with respect to both ability and character.
2. As part of enrollment routine, about two-thirds require physical examination, nearly all of them soon *after* enrollment. In no case are results available at enrollment time. Cornell, Washington, Vermont, Minnesota and Iowa give psychological examinations. At Kentucky it is optional except in special cases. In no case are results available at enrollment. About two-thirds report securing of personnel card information. Montana, Oregon, Nevada, Colorado, Washington, Minnesota and Iowa give English examinations either before or soon after enrollment. Optional English examinations are given at Washington. Georgia gives mathematics examinations and English examinations, the latter to classify students on the basis of ability. Mathematics examinations for engineers are given at Wisconsin. Washington requires entrance examinations if two-thirds of high school credits are not above eighty per cent.
3. No schools report vocational talks before enrolling. About half report opportunities of counselling with general offices and departments before enrolling. A few give a series of vocational talks during first semester.
4. Amount of time given in counsel to entering students on the selection of their courses and subjects varies greatly, averaging fifteen to thirty minutes.
5. In a few cases, entering students enroll early. At South Carolina and Mississippi they come two days early. In the College of Science, Literature and the Arts at Minnesota they come a week early. About one-third feel it would be a help for new students to come early. Others feel there is no need of it as far as their local situations are concerned, due chiefly to the fact that they enroll all old students during the end of the previous semester.

Others failed to answer the question. Oklahoma, Arizona, Oregon, Kentucky, Colorado, Vermont, West Virginia, New Mexico, North Carolina, and Wisconsin favor the plan of early enrollment for freshmen. Difficulties suggested are the expense to the student due to extra week and shortening of his earning period during summer, the problem of the faculty's relation to this extra week, and that unless this week were arranged so as to keep the student busy it would be a detriment to him to start the year loafing.

6. Most schools report the use of few advisers. Texas reports no official advisers, students going wherever they choose for counsel. Wisconsin and Nebraska report many advisers, the latter expressing dissatisfaction with the plan.

Number of advisees per adviser usually fifteen to thirty. North Dakota says one hundred and Montana fifty to seventy-five. Reduction of teaching load in Minnesota, but not elsewhere.

7. South Dakota, Oklahoma, Montana, Arizona, Kentucky, Maine, Colorado, Nebraska, Minnesota, Iowa, South Carolina, Wisconsin, and North Dakota enroll students during the previous semester for the succeeding semester. Several, however, do so only for the second semester.

Enrollment by mail is seldom followed. Freshmen may enroll by mail at Oklahoma. Some schools at Minnesota also use the plan. Iowa and Kentucky report finding the method unsatisfactory.

Necessarily all schools enroll new students at the beginning of each semester and over one-half of them all their students.

Texas reports enrolling for both semesters at once.

C. GUIDANCE OF STUDENTS ABOVE FRESHMAN YEAR.

(1) *Early enrollment.* In order to allow for ample conference time, various plans of early enrollment are in use which may be illustrated by the practice at Minnesota. There the freshmen enroll for two quarters when they enter in September. In March they enroll again for spring

and fall quarters. In December, as sophomores, they enroll for the winter quarter, and in March for the spring and fall quarters. In December, as juniors, they enroll for winter and spring quarters, and in May for fall, winter and spring quarters. At each of these enrollment dates, conferences are by schedule, each student having an appointed time, thus avoiding waiting.

(2) *Continuity of relation between adviser and advisee.* In Cincinnati, the same adviser remains with his given group of advisees (about 14 in number) throughout the first two years and is provided with accumulative record sheets containing all the essential facts about the students, assembled from various offices of the University.

In Oberlin, the adviser to whom a student is assigned at the beginning of the second semester of the freshman year remains with that student as adviser throughout the college course. Even though in the junior-senior years the head of the student's major department also confers with the student concerning courses to be enrolled for, the regular adviser must give official approval concerning enrollment, thus emphasizing the personal rather than the academic relation between an adviser and student. In fact, the rule stands in Oberlin that this general adviser cannot be a member of the teaching staff of the department in which the student does his major work. This is probably in recognition of the tendency of faculty people to be departmental specialists rather than personal counsellors.

Smith College has one adviser for each class who remains with the same girls as adviser for their four years. During this time the adviser has only a half teaching schedule. After the four years' period at least a year is allowed to elapse before the teacher is assigned as adviser to another freshman group.

Although these interesting exceptions occur, the prevailing practice is still to have advisers assigned by the Dean's office who approve enrollments during the freshman-sophomore years, while the student automatically comes under the advice of the head or other appointed representative of the department in which he elects to do his major work in the junior and senior years.

D. VOCATIONAL GUIDANCE.

(1) *General statement.* There is no complete separation of vocational counsel from other counsel. The counsel concerning enrollment discussed in previous sections of this chapter often touches upon vocations. However, there are certain activities in the direction of vocational guidance which merit separate mention. The general relationship between the possession of a vocational motive and the doing of diligent work by students is recognized by most college teachers. For that reason, if for no other, the colleges are earnestly endeavoring to find the manner in which the student's studies may best be fitted to his aptitudes and tastes.

(2) *Making available information about vocations.* It is not uncommon now for college libraries to set aside a reserve shelf for books and pamphlets dealing with vocations. In some colleges, faculty committees are appointed to build up this library collection, and to devise the best means of getting the students to make use of it. A few colleges, Stanford is a good illustration, publish a volume of brief accounts of vocations prepared by faculty members or others giving just such information as students would need in helping them to decide upon their careers. Other institutions, Kansas University for example, multigraph and bind the accounts, each vocation separately, thus making it possible to give to an inquiring student only

such vocational descriptions as those in which he might find himself interested. Curricula recommended as preparation for the various vocations are frequently published together with the descriptions, or supplementary thereto.

(3) *Vocational talks or conferences.* It is not an uncommon practice for colleges to arrange for a series of talks by faculty representatives or others, each talk dealing with a given vocation, and attendance of students voluntary. Other colleges make attendance upon the series a regular part of the requirements for freshmen, as at Cincinnati. Conferences are held at intervals at which some vocational guidance expert gives vocational talks, holds personal conferences with students and faculty members. This practice appears to be more common for women students than for men. In Minnesota, women students may be excused from classes to attend these conferences. In the University of Washington, an annual conference is held at the university each spring for high school seniors contemplating entering the university in the fall. At this conference representatives of the various vocations for which the university offers curricula tell of the advantages and disadvantages of the various vocations.

2. OPINIONS AND CRITICISM.

On the general problem of educational guidance a surprising number of college teachers expressed the opinion that the best counsel students, especially freshmen, can get is that given by the older students. The freedom with which older students, particularly fraternity brothers, advise the "Freshies" to "ditch" this course or "grab" that one, is regarded as an adequate safeguard against bad mistakes. To be sure, the reasons for the advice

are often only semi-educational considerations. Nevertheless, the advice is effective, and probably on the whole helpful.

The intimate connection between educational guidance and the variations in standards among elective courses was recognized by many teachers and students. "Snap" courses are still a bane of colleges, although two excellent college teachers were found who defended them as a wholesome variation in the grind of student preparation of assignments. Students, excellent representatives too, sometimes admitted that it is a good thing all courses are not as hard as some, or college attendance would "kill off" the whole student body! It must be remembered, however, that teachers whose requirements are lax or light, do not impress students as "good teachers." Tables IC and ID in the Appendix B, reveal that of the more than 350 seniors answering, only 25 checked as true of their "best teacher" the statement, "His courses required less work than the average college course." Of nearly 500 alumni answering the same question, only 28 checked the above statement as true.

The function of advising students is being accorded more attention than formerly, records of pertinent facts of all sorts being assembled for the aid of advisers. It is still in a very unsatisfactory state, however, judging from reports of faculty members generally. The subject is treated so well in a recent report of a Faculty Committee on Educational Guidance at Minnesota, published as University of Minnesota Bulletin, Volume 24, No. 31, August, 1923, that I cannot do better than quote at length from its recommendations. It must be understood that these recommendations are intended for the University of Minnesota, but in most respects they apply widely to colleges and universities:

"A. IMPROVEMENT IN EDUCATIONAL GUIDANCE IMMEDIATELY POSSIBLE.

"Under improvements immediately possible, the committee recommends the following:

1. Educational guidance bulletin.
2. Orientation courses.
3. Improved means for personal advice to students.

"1. *Bulletin for educational guidance.*—It is recommended that the university issue a bulletin or series of bulletins which would contain information regarding the various professions and vocations for which students may obtain the necessary preparation, in whole or in part, at this University.

"Such a bulletin should include a general introduction and a series of sections, each devoted to a professional group, such as medical, engineering, agricultural, etc. In each of these groups, the appropriate professions would be considered separately, as civil, mechanical, electrical, and structural engineering, and the corresponding section of the bulletin should have an introductory statement applying to that field or group of professions. These sections of the bulletin should be published separately for special distribution as well as in a single volume.

"The general introduction would be of the utmost importance and should be prepared with great care, preferably by a committee. It should set forth the principles upon which the choice of a profession or specialty should be based. Special attention should be devoted to the matter of income and rewards although the subcommittee believes that numerical salaries should not be stated, as being likely to create false impressions. The importance of self-analysis concerning personal tastes, physical and mental capacities, inherited characteristics and opportunities, etc., should be emphasized. The general question of attending a university might well be discussed.

"2. *Orientation courses.*—The committee recommends that the University and the several colleges be urged to offer orientation courses for the educational and vocational guidance of students. Beginnings in such courses have already been made in the College of Science, Literature, and the Arts; in the College of Engineer-

ing, and in the College of Agriculture. Such courses should be designed to acquaint young college students with the civilization in which they are to live and the major vocations which such civilization supports and requires.

"In order that a student may profit most by the information which he gains through an orientation course, the committee believes it desirable that the University organization make easy the readjustment of a student's program during and following such an orientation course. An all-University orientation course would appear to have certain advantages, particularly as preliminary to courses given within separate college organizations, for the reason that if students have definitely committed themselves to a professional school, the inflexibility of curricular requirements renders readjustment difficult.

"3. *Improved means for personal advice to students.*—The committee recommends that the methods of giving educational advice to students during the Junior College years be improved. Educational guidance bulletins and orientation courses should serve as proper introductions to personal advice by faculty members who are qualified for such service.

"It would seem in this connection that the University might well consider the designation of certain faculty members of the requisite personal qualities who will constitute an organized body of advisers. It appears to the committee that the choice of such advisers should be made without reference to the college in which they may hold their positions as instructors, and that there be designated for such positions as advisers *only those persons who are willing completely to inform themselves in all matters pertaining to complicated problems of educational and vocational advisement which they must meet.* The committee has in mind that an adviser is something more than an assistant in schedule-making and related registration activities. The committee regards it as desirable in so far as possible, that students have the opportunity to be advised by persons who have first-hand contacts with the several professional and vocational fields. Arrangement should therefore be provided by which freshmen in any college may have the opportunity to consult advisers from the professional schools. Wherever feasible, use should be made of persons of undoubted attainments in the field, even though such persons may not be members of the University organization.

"The committee would specifically call attention to its recommendation that the proposed advisers should constitute an organized body that would associate with one another for the implied purpose of representing all parts of the University organization.

"It is in particular recommended that means be afforded by which students considering any of the major professions, such as medicine, engineering, law or teaching, may be advised by persons who are either practitioners in the profession itself or by others whose personal contacts with this profession are such as to give them correct and sympathetic points of view.

"B. PERSONNEL AND RELATED EDUCATIONAL RESEARCH.

"The committee recommends that the University give continuing attention to the study and investigation of the personal qualities and the training that make for success in the vocations for which the University now trains. The problems needing investigation are varied and difficult and must be viewed from numerous angles. There are now in the University a number of individuals, some of whom are administrators and some of whom are instructors, who are pursuing individual investigations on student personnel problems and other forms of university educational research. The committee believes it desirable that such individuals be encouraged in all feasible ways to continue and extend such investigations. It is recommended that the president of the University appoint an educational research committee which shall promote the study and investigation of educational problems within the University. Such agency should not, for the present at least, have administrative functions, but should be for the purpose of investigation, experimentation, publicity, and cooperation among administrative agencies now existing. The membership of such an educational research committee might well consist of administrative officers and in part of other faculty members, specifically interested in the study of university education. The immediate purpose of such a research committee would be to provide means of coordinating the research now being done by individuals in the University, of advising in regard to the direction which research should take and the methods to be employed, and in promoting the dissemination of resulting information throughout the University.

"It is specifically recommended that such agency should promote in the immediate future a study of the marking systems in use in the various divisions of the University which would lead to recommendation in regard to the standardization of marks.

"It is further recommended that this committee promote a study of the facts of elimination from the University and of the desirability of providing courses of training suitable to students of ability who cannot or do not desire to pursue a full university training of four or more years.

"The committee regards it as desirable that there be prepared a personnel record on which shall be recorded all available data concerning a student at the time of his entrance to the University, and which shall follow the student from one educational diagnostician to another wherever his case is being considered by an administrative officer or adviser. Some such records are now in use in certain of the offices but it is deemed important to have a satisfactory study of such a record blank for general use throughout the University. The preparation of such a blank would be the work of the proposed committee on educational research.

"An additional problem which the committee deems worthy of investigation is the professional and vocational histories of the graduates of the University. Some such studies are in progress already and particular attention is here called to the practice of the Johns Hopkins Medical School in its annual publication of the professional histories of its alumni.

"C. EDUCATIONAL PUBLICITY.

"It is recommended that provision be made, either through the committee as above proposed or by other means, for the publicity of information regarding the progress of educational research in the University of Minnesota and elsewhere. Such publicity could take several forms as follows:

- "1. Short mimeographed or printed articles to be distributed to members of the faculty. In particular it is recommended that an article of this type dealing with the advantages of the objective type of examination, together with copies of such examinations be made immediately available.

- "2. Discussions before members of the faculty by individuals who are pursuing educational research in the University. In particular it is suggested that the various deans afford early opportunity for the discussion of the advantages of the objective type of examination in the determination of student marks.
- "3. Bulletins containing digests of periodical literature and pertinent bibliographies should be prepared and circulated.
- "4. Meetings open to all members of the faculty for the purpose of the discussion of educational problems. Programs for such meetings could take the form of speakers from other institutions or the presentation by members of the faculty of the results of local investigation.

"D. FINANCE.

"The committee recommends that the University administration give favorable consideration to supporting the several projects herein recommended by the expenditure of the University funds. It is believed that the ultimate contribution of this type of work to the improvement of university education will be far in excess of any immediate costs which may be required. The practice of the University in lightening the teaching schedule of instructors who are devoting themselves to the study of educational problems is believed a wise policy.

"E. CONFERENCE.

"The committee recommends that the University promote an educational guidance conference as suggested in your original communication. Such conference would properly include, in addition to members of the University faculty, superintendents of schools, high school principals, representatives of professions and vocations who are not connected with educational institutions, and a variety of specialists in social and related problems.

"It is recommended that such conference be arranged under the auspices of the University during the first two days of the week during which the Minnesota Educational Association holds its meeting in the Twin Cities.

"For this conference it is recommended that the University

provide one or two speakers who have given particular attention to the problems of educational guidance in connection with high schools and universities, and that there be presented at the time such material as the University and Minnesota officials may be able to assemble."

3. *NEEDED RESEARCH.*

The personnel and related educational research recommended in the Minnesota report quoted above indicates the most urgent lines of investigation. In addition to the suggestions found there, the following may be offered:

- (a) A study of variations in time required by students to earn a credit hour in:
 - 1. The several courses and departments within a given college.
 - 2. A group of colleges.
- (b) The relative effectiveness of the two practices, few advisers who give considerable time to student conferences, and many advisers who give relatively little time.
- (c) The relation between the number of times a class convenes per week and the time required to earn a credit hour.

CHAPTER V

COLLEGE METHODS OF TEACHING

A. GENERAL STATEMENT.

College teachers in general have not been very hospitable towards the discussion of the pedagogy of college teaching. The attitude has prevailed that if a teacher knows his subject his teaching will take care of itself. During the recent development of departments of education in college organizations many college teachers have been frank in their expressions of distrust. Therefore, any discussion of methods of teaching is likely to be discounted by a considerable fraction of college teachers, because they do not believe that any such thing exists.

In spite of this, however, it has seemed necessary in planning this study of some of the more intimate problems of the college to include such questions as were practicable concerning methods of teaching. This subject was made the basis of the major part of conferences with college teachers in all the institutions visited. While the results of these conferences cannot be tabulated in statistical form, it has been possible by means of them to assemble a considerable body of opinions concerning methods of teaching, which it will be my purpose to interpret in this chapter.

In addition to the data gathered from college teachers, I also have the comments of a number of senior students on certain aspects of methods upon which it seems to me they are competent to speak. The most valuable contribution which the senior students made was to give in detail descriptions of class procedures in specific courses. This

was a substitute for visiting classes. Finally, a considerable number of college seniors and a still larger number of alumni expressed opinions that bear upon the subject of methods of teaching in their answers to the questionnaire which was submitted to them. There is, therefore, a considerable quantity of data upon which to base statements concerning methods. It must be understood, however, that this inquiry made no effort to go into the details of class room procedure with the notion of checking up such practices in detail by the application of pedagogical principles.

Two very helpful studies have been published on this subject:

1. "Present Problems of Instruction in the University of Chicago," by the faculty Committee on Instruction, James H. Tufts, Chairman, the University of Chicago Magazine, December, 1910. This study is based on statements from instructors, alumni and undergraduates. Its conclusions are:
 - "a. A dean or other officer should be selected, who should be relieved largely from instructorial duties, and given the especial task of investigating conditions and problems of undergraduate instruction, and assigned such administrative functions as may be appropriate. He should advise with students, colleagues, and the President, or Dean of the Faculties, and be intrusted with large responsibility. In each department offering a considerable amount of undergraduate work a member of the staff should be appointed to consider undergraduate instruction and advise with the general officer before named and with his colleagues.
 - "b. Lectures as the principal means of instruction, particularly for elementary classes, are, in the opinion of the great majority of instructors, alumni and undergraduates, unwise.
 - "c. Oral reports are likely to do more harm than good unless properly guarded.

- "d. Written quizzes are regarded as a fairer means of grading than oral tests.
 - "e. Certain subjects are better handled in courses meeting five hours a week, others in courses meeting four hours.
 - "f. Students should know their grades.
 - "g. There is need of better adjustment in the time required for preparation; some instructors require too much; a few require little or none. This could be most successfully approached through the agencies recommended under "a."
 - "h. The most pressing demands in equipment for proper instruction are: (1) Duplicate books in the libraries. These should be provided for as certainly as laboratory supplies. (2) Maps, charts, slides, and similar aids.
 - "i. Dishonesty is sufficiently common to make it important for administrative officers, instructors, and students to cooperate in measures to reduce it to a minimum."
2. "The Teaching of Economics in Harvard University" by the Harvard Division of Education, Harvard Studies in Education, Volume III, 1917. In addition to its findings with reference to the teaching of economics in Harvard University, the volume has great value as illustrating the technique of investigation of college methods of teaching.

One of the urgent problems of method which college teachers are becoming rather acutely aware of, but for which they have found no very satisfactory solution, is the need for variation according to the functions which the different courses have. For example, college teachers admit that the method which is suitable for the mastery of tool processes in such subjects as foreign language and mathematics, may fail entirely when applied to subjects whose outcome is supposed to be the assimilation of points of view and the establishment of intellectual and moral qualities necessary in a cultured citizen.

Again, a different type of method is admitted as probably necessary in the case of vocational courses, where the motive is sufficiently strong to cause a student to desire to master the subject for the sake of the immediate vocational advantages he hopes to obtain. Differentiation of method, therefore, according to function requires first of all a clear appreciation on the part of college teachers of the different functions which the various subjects have.

It is clearly understood by a minority of college teachers that the very aims and purposes of the college must be stated quite as much in terms of method as in terms of subject matter. As soon as it is granted that the mastery of information is not the aim of cultural courses but that instead subject matter is a means for the development of such qualities as initiative, habits of study, etc., then it is granted without argument that certain methods of teaching which have been thought acceptable are no longer to be admitted.

It seems, therefore, that college teachers in spite of their professed indifference to pedagogy are ready for a serious consideration of the fundamental relationship between methods of teaching and the accomplishment of the aims of the college.

B. GENERAL TYPES OF CLASS PROCEDURE.

1. CURRENT PRACTICES AND TENDENCIES.

There are six general types of college teaching:

- a. The lecture
- b. Class discussion
- c. Question and answer
- d. Laboratory study method
- e. Tutorial
- f. Individual report or seminar

In any particular course there is frequently a combination of two or more of these types. Even in a given hour of classroom work combinations of these types are frequently used. Nevertheless, there is a tendency to conduct certain courses by one type and certain other courses by another type.

a. *The lecture method.* Much of the work in the social sciences, especially history, in many of the colleges is given in large groups where a minimum opportunity for any other type of procedure than lecture is possible. In the University of California, a large lecture class of more than one thousand is conducted for the beginning class in political science. In Minnesota, the lecture method is common in history courses. In Dartmouth, a considerable part of the advanced work is conducted by the lecture method as well as the social science work in the freshman class. In fact, very few of the colleges maintain their sections in social sciences small enough in numbers to allow of any other type of method as a dominant type than lecture. In some cases quiz sections replace one lecture a week, in a few cases, two lectures a week, but in many the class is conducted for all its periods as a lecture and students prepare note books on the assigned readings and write quizzes on both the lectures and assignments.

The lecture method is also a common practice along with the laboratory method in the natural science courses. Very commonly frequent short quizzes, as well as periodic longer papers, are required as evidence of mastery of the subject matter of the lecture.

It thus appears that those departments whose enrollments have increased most rapidly the last twenty years, are resorting to the lecture method.

b. *The discussion method.* A majority of teachers claim to use the discussion method, but when questioned more

closely they generally reveal that the method is primarily questions by the teacher and answers by the students. This is even more universally asserted by senior students. Rarely ever do students themselves raise questions for class discussion. Rarely ever does initiative arise in the class for going further into the meaning of a question raised. So far as my contact with the colleges revealed it, discussion is a method characteristic of a few teachers found here and there in college faculties, but as a method for general use, it has not yet found its way into college classrooms.

c. *The question and answer method.* Whether in written quizzes or as a practice in the classroom, this method as at present used has as its end the discovery by the teacher as to whether or not students have mastered the assignments. The responsibility both for the assignments and for the checking up of the students lies with the teacher. The practice should not be confused with the method of using the question to unfold greater and greater expanses of view to the student. As it is practiced in college in a great majority of cases, the method is not a method of teaching at all. It could more truthfully be designated as the quiz rather than the question and answer method of teaching.

d. *The laboratory method* is, of course, the characteristic method of the natural sciences and is growing in use in some other fields, notably psychology. Where students have to study with actual materials, such as botany specimens, chemicals or high voltage electricity the college feels called upon to provide facilities, materials, instruments and the like, as well as to provide oversight and guidance while the student is studying with these materials. Thus, we have in one field carefully directed study, so carefully directed in fact in certain instances, that students are told

in such detail what to do and what to expect to find when they do it, that the main task is one of following directions rather than in studying sciences. However, the method as a whole leaves a relatively large play for the student's individuality.

e. *The tutorial method.* The method of teaching so prevalent in English colleges is relatively unused in American colleges. Of course, individual help given by teachers to students is everywhere, but any regularly devised scheme for making use of individual instruction is rare. Harvard constitutes an outstanding exception. A brief statement of her practice may be helpful.

Tutorial instruction is essentially a part of Harvard's plan of comprehensive examinations covering a student's field of concentration. These examinations (not yet required in all the departments) are prepared for only in part by courses pursued by the student. The list of courses leaves many gaps. A tutor is expected to have a wide grasp of the field and be able to (1) suggest other study supplementary to the courses, and (2) aid the student in the effective organization of the whole field. No uniform plan is in vogue with reference to the number of times the student shall confer with his tutor, etc. Instead, tutors are made available by the college and students are assigned to them. The help students get is largely voluntary with them.

It will be seen that in the Harvard plan, tutorial instruction is largely an extra. Harvard students pursue approximately the same number of courses under the classroom form of instruction as do students in other colleges where no tutoring is done. The fact that classes are so large in Harvard makes some justification, additional to the sound theory of preparation for comprehensive examinations.

f. *The individual study or seminar method.* This is more a method of study than a method of teaching. Where the student is enrolled to undertake some task and is at liberty to secure help and guidance when he wants it, but is free to go his own gait and use his own initiative, being held only for results, is a method rarely found in the undergraduate work. Exceptions are confined practically to certain quite advanced courses scattered among departments and colleges.

At Grinnell and Stanford, the English departments have an advanced course called "English Elective" in which each student does an individual sort of study for the course.

In Reed College students fitted for it are allowed a considerable fraction of their senior year on some special study comparable with independent graduate work.

In a number of institutions the practice characteristic of many departments in Minnesota prevails, in which superior seniors are allowed to enter seminar classes designated primarily for graduate students.

One other practice is rather common in which courses conducted primarily by some other method still make a portion of the requirements the preparation of a paper calling for independent study by each student of the class. In a few cases, too, the custom prevails of not requiring such a paper from everybody but allowing more credit to the student who takes the course and does this outside paper than is allowed students enrolled for the course without doing the outside paper.

The most significant tendency, however, in the use of the independent study method is the relatively recent development of the practice of providing special curricula and special methods of study and teaching for superior students. Smith College is a good illustration of such a scheme and details will appear later in the chapter.

2. OPINIONS.

College teachers are agreed in the vast majority of cases that the lecture method as a means of imparting information, where no other motive for obtaining it than one of general culture prevails, is a poor method of learning. In this belief students not only concur but concur with emphasis. It is, of course, agreed that where materials are not accessible to students they may be given them in lecture form. Furthermore, where the outcome of the lecture is acknowledged to be inspiration, rather than information, everyone, teachers and students, admits that the lecture method has its place. For this purpose, it was pointed out in many conferences that the lecturer must be a man or woman of particular aptitude for this sort of thing or the method fails. That a man is thoroughly versed in his subject is not sufficient ground for assuming that he can use the lecture method successfully.

College teachers agreed also in general that the use of the discussion method calls for a personal relationship between teacher and students that is rarely found in college and would be very difficult to develop. For use of such a method teachers would have to have primary interest in the students as students, rather than in the subject. Present college faculties do not abound with men and women thus possessed. It is at this point that we find some difference between the small college and the large college, especially the university college.

The reaction of college teachers to the quiz method was largely a belief that they kept the students mentally alert by interjecting questions now and then throughout lectures, or that they kept the students at work upon assignments by having them know that frequent quizzes were in order.

With reference to independent study it was almost the unanimous conviction that such a method was the best

method for developing real intellectual strength. On the other hand, it was almost as universally conceded that in the vast majority of cases students in American colleges would not profit by much independence. Definite assignments seemed required by the intellectual immaturity of college students even when they are seniors except in the very rare cases of students who are born to intellectual leadership.

Turning now to the opinions expressed by seniors and alumni on the questionnaire submitted to them we find in Tables IC (a) and IC (b) Appendix B, page 185 the complete tabulations of the characteristics of the college teacher named as their "best college teacher." Of the ten qualities listed, the two which stood highest in the minds of the seniors were in order:

1. He emphasized life situations more in his teaching than did other teachers.
2. He expected more initiative and allowed more independence to students.

In the case of alumni these two qualities also were the ones which stood highest, but they were reversed in order, the quality most appreciated in their best teacher being his expectation of more initiative and independence in his students. It seems safe to say, therefore, that from the testimony of students and alumni greater independence, less rigid assignment and quizzing, the expectation of more study for the sake of mastery and then an opportunity for freer discussion of the points involved would be appreciated.

The answer of the college teacher is that the great majority of students would simply loaf and would not, therefore, obtain values worth while. This conflict between the opinions of students and graduates on the one hand and teachers on the other brings us to the nub of the problem of

methods of teaching. Students are attending college in ever increasing numbers. In many colleges, as many as fifty per cent of men students earn most of the money they spend in college. Yet college teachers say students will not study unless they have to. What is the trouble?

Light is shed upon this question by the replies to IC, ID and IE of the questionnaire. Tabulations of these replies are given in the tables in the Appendix B, pages 185-8. It will be observed that when characterizing their "best college teacher" nearly all the seniors, as well as nearly all the alumni, believed that he "had a more profound knowledge of his subject than had other teachers," but only 13% of the seniors and 10% of the alumni regarded this quality as the most significant one. Our tendency to stress research and highly specialized scholarship to the neglect of other qualities when selecting college teachers may be one reason why students do not regard the studies as important enough to work at without being required to.

In answer to the request to "give any other brief characterization of 'the best college teacher,'" 304 characterizations by seniors and 484 by alumni were made. These were difficult to classify, but it was finally decided to group them into four classes and omit the scattered ones falling outside these four. The largest class was designated "good teaching qualities," teachers practicing sound pedagogy, whether consciously or not. These characterizations were 40% of the total suggested by seniors, and 42% of the total suggested by alumni.

The next largest class of suggestion was that headed "sympathy, cooperation, charity, etc." This class constituted 28% of senior characterizations and 29% of alumni characterizations.

These two classes of characterizations, both of which are more or less frankly taboo among college teachers, were

mentioned as traits of the "best college teacher" in 70% of the cases. This may also help to explain why teachers have to require students to study assignments.

Finally, it is left to report the comments made following this request: "Give any general suggestion you care to concerning the methods of teaching used by college teachers." Possibly the nature of the request accounts for the near absence of favorable comments. At any rate, about all the comments were unfavorable, ranging from unclassifiable ones such as "rotten" to most discriminating statements indicating clear appreciation of the part played by methods of teaching in achieving the aims of the college.

Tabulating these suggestions was a difficult task. Finally, thirteen headings or classes were adopted as about the minimum to which the wide range of suggestions could be reduced. Even then there were a good many valuable criticisms which had to be thrown into the miscellaneous class, such as "should adopt the case system" (mentioned by many who have later studied law); "teachers too great specialists"; "abolish assistants who read student papers"; various comments on "examinations," etc. Having adopted a classification, painstaking effort was made to sense the meaning of the suggestion, and classify it accordingly. It is freely acknowledged, however, that in a small percentage of the cases, the interpretation was not entirely clear and there is a chance of error on that score. Where the doubt was strong, the suggestion was thrown into the miscellaneous column.

Table IE, Appendix B, page 188 was made up in this way. It will be observed that there are a total of 242 suggestions from seniors, and 341 from alumni. A few, only a few, gave two suggestions, so the number of different persons answering was slightly more than 200 seniors and 300 alumni. This is a little more than half of those who sub-

mitted answer sheets. It may be held by some that the other half are those who felt no particular adverse criticism, and therefore reported nothing. This may be true. At any event, reading through the hundreds of suggestions would impress any one with the surprising extent of adverse criticism.

Some of the answers, a relatively small number, were put in language which was adverse only by inference; for example, "Teachers should allow a great deal of class discussion" was classified under the heading "Too little participation by students." However, the following was classified as "partly favorable"; "Some teachers, fortunately, not many, do all the talking." (This group was thrown in with the "miscellaneous" in the final tabulation.)

The criticisms fall mainly under four heads:

	Times Mentioned by	
	Seniors	Alumni
1. Adverse criticisms of the lecture method or its extent	23	31
Too little participation by students	32	0
Total	55	40
2. Teachers interested in subjects rather than in students—miss student viewpoint ...	20	43
Poor adaptation of work to student abilities	11	24
Total	31	67
3. Teachers emphasize facts, or memory, rather than thinking, reasoning, initiative, etc.	43	55
4. Teachers too academic, dogmatic, pedantic, impractical, and make too few applica- tions to real life situations	28	50
Total of these four classes	157	223

These account for more than 65% of the suggestions made. College teachers should give thought to these criticisms as another possible reason why students appear to work only when required to.

One other group of data bearing on this question is provided by the questionnaire. Alumni were asked to check the following which contributed most to the development of the qualities of an educated or cultured person:

- a. Information acquired,
- b. Habits of study gained,
- c. Personal friendships enjoyed,
- d. Inspiration from good teachers,
- e. Extra class activities participated in.

According to the answers received, inspiration from good teachers ranked highest; habits of study gained, ranked next, while information acquired came last.

The following question was asked on the blank submitted to distinguished alumni, "Should methods of college teaching tend more to exact assignments of work or more to independence of students in their study of a given subject?" Many qualified their answers to this question, but fourteen felt that college teaching should tend more to exact assignments while twelve thought it should tend more to independence of study. Seven others called attention to the fact that exact assignments should characterize the junior college and eight mentioned that independence of study should characterize the senior college.

The same distinguished alumni were also asked, "Which is more important in college teachers, profound scholarship or inspiring personality?" Out of a total of thirty-five, whose answers could be classified, twenty-six gave precedence to inspiring personality and five gave precedence to profound scholarship. Four felt that the two qualities

could not be distinguished or else they thought both of equal importance.

3. CRITICISM.

Attempting to sum up the opinions expressed by college teachers, college students and alumni, we must seriously question the validity of the lecture method in many of the places and under many of the circumstances where it is now used. Many college teachers frankly admit that the only reason for its use is the large enrollments of students. Where this reason prevails, of course, no criticism on the use of the method can lodge, if the college authorities are taking such steps as they can to relieve the situation. Where the lecture method in general cultural courses is being used by choice and not from necessity, its results should be examined critically. Cultural education comes primarily through *active thinking* on the part of students and unless active thinking can be secured by the lecture method little educational advantage can come from it.

It is admitted quite generally that students would profit most by the exercise of greater initiative and independence; but it is contended also that American students are not prepared to use such a method. From this arises the question as to whether the work in the American high school may not be subject to the same adverse criticism as is being offered here against the college. Our whole scheme of marks and credits and promotions and graduation from the earliest grades through the university has a tendency to concentrate the student's attention on doing what he is told, rather than in seeking to gain mastery either of himself or of a field of learning. Whenever a student is thrown on his own resources he must go through a period of relative failure while he is learning to direct himself and to overcome his tendencies to waste his time.

Whether the development of a self-mastery could not be carried somewhat further than it is in the earlier schools is a question fair to raise at this point. If methods of college teaching have to be what they are because college students are lacking in certain abilities of which they should come to college already possessed, the college cannot be held alone accountable for a possible failure in achievement.

The Yale freshman year is an instance of reorganization, partly to meet the insistent demand on the part of the alumni for a different type of teaching in the freshman year. The officers in charge of the freshman year acknowledge that one of its main functions is to secure this better teaching. To this end no section of freshman students is allowed to have more than twenty students. The personal relationship between teacher and student is expected to be stressed. The teacher is expected to become conscious primarily of his students and their needs and to lessen somewhat the value of the materials of instruction as ends in themselves.

This same demand is being felt in college circles the country over, and it is safe to predict that in the long run some organization will be adopted which has as its principal purpose the accomplishment of this better teaching. Whether it be in a single freshman year, as at Yale, or whether it be in a two-year junior college, only time can tell, but that we shall have a distinctive method, as well as a distinctive curriculum for this general training period of college life, seems a fair forecast.

Up to date, the general tendency to divide college courses into a lower division and an upper division has been supported mainly by a curriculum argument. It can be supported even more strongly by arguments calling for a distinctive method of teaching in each division. During these

two years (or whatever time is devoted to general training), the aims are cultural, and the methods must be chosen accordingly. Here, the teaching must be done by teachers of strong personality whose subject matter specialization is important primarily because of its assistance in developing this strong personality. Whereas, in the upper division, specialization is the prime requisite and students can be expected to come into the courses ready to be guided in their study, the end of which shall be mastery of a given field, rather than the development of traits of character and habits of mind.

4. NEEDED RESEARCH.

a. College teachers might study a course in psychology or pedagogy as applied to college teaching, directed by some member of the staff. This has been done in a number of colleges, more often, perhaps, in colleges of engineering than in colleges of arts. Reports from such studies would be useful.

b. Alternative methods of teaching should be tried in sections of the same class for admittedly experimental purposes. Of course, careful tests of results would have to be evolved, so that the relative effectiveness of the two methods could be measured. These tests would have to square with the aims, too. A few suggestions for these alternative methods will make clear what is meant:

1. In preparatory or tool subjects:

- a. Where the purpose is to obtain a speaking or reading knowledge of French. As alternative to the current practice, prepare a book starting with simple questions, answers, and discussions about every day things, in French on one page, and in English on the page facing it. Arrange that study periods (like laboratory periods), shall be in groups of two,

three or four students where they speak or read aloud, asking each other questions, assured that when they can meet a certain test their work of the course will be done.

- b. In mathematics, where the purpose is the mastery of certain formulæ in a text with ability to apply them to practical problems. As an alternative to the current method, allow one section, to which has been given an outline of the semester's assignments, to come to class or not as the individual members choose, that is, hold the class for those who wish help. Have this section pass the same quizzes monthly and at the end of the term as the other section. Have a record kept by each member of the time he spends in study, the test being to see in how short a time the student can master the requirement.

2. In cultural subjects:

- a. In some history courses where the materials are well organized in a few books. As an alternative to the lecture method, have one section meet but once a week for lecture. Have the class divided into groups of four or five, students selecting their group members wherever possible, and have the groups spend the time, otherwise devoted to listening to lectures, to discussion among themselves of the points covered in the outline of lectures and readings. Let the group select its own discussion leader from its own membership.
- b. In some science courses where the laboratory manual is fairly explicit. As an alternative plan to the current method of having laboratory instructors, let a given section do its work without an instructor but with liberty to discuss among themselves the problems arising, and having access to books containing the data for the answers.

3. In informational or vocational subjects:

- a. In a course like farm crops. After a few introductory lessons in which the field of study is clearly laid out, release one section from class attendance,

holding certain hours for consultation if the student wishes to consult. Have quizzes at frequent intervals over parts of the subject previously indicated to the students.

c. Investigations of the cost of the laboratory method as compared with other methods.

C. RECOGNITION OF INDIVIDUAL DIFFERENCES, ESPECIALLY IN THE INTEREST OF SUPERIOR STUDENTS.

1. GENERAL STATEMENT.

Universal education in publicly controlled schools has resulted in this country in a more or less uniform method being applied to all members of a group without regard to their differing abilities and needs. This has been particularly true of colleges. We undertake to set a standard of achievement in terms of subject matter and institute such examinations as will determine whether students have met the required standard. We have neglected the value which comes from students working up to the maximum of their capacity when that maximum is not required to reach the established standard. How serious this defect is in retarding the development of adequate leadership in America it is impossible as yet to say, but statesmen never tire of calling attention to the fact that our school system is a failure in this essential.

There is a growing recognition in colleges of a need for differentiation in treatment between students of varying abilities. Many schemes are being tried for the particular purpose of doing greater justice by students of superior ability in the belief that from this group of students must ultimately come a considerable proportion of leaders in various walks of life.

Before entering into a consideration of these college

practices attention should be called to a number of articles dealing with the subject:

1. A series of papers dealing with the gifted student in the Proceedings of the 24th Annual Conference of the Association of American Universities, 1922, Professor David A. Robertson, University of Chicago, Secretary.
2. "The Problem of the Education of College Students of Superior Ability," by George Walter Stewart, "School and Society," November 19, 1921.
3. "The Gifted Student and Research," by C. E. Seashore, "Science," December 8, 1922.
4. "Sectioning Classes on Basis of Ability," by C. E. Seashore, "School and Society," April 1, 1922.
5. "Comments on the Plan for Sectioning Classes on Basis of Ability," by C. E. Seashore, "School and Society," November 4, 1922.
6. "Studying for Honors in American Colleges and Universities," by Albert L. Barrows, "School and Society," April 9, 1921.

2. CURRENT PRACTICES AND TENDENCIES.

There are three different methods in vogue for recognizing the needs of superior students:

- a. Informal recognition by teachers and administrative officers in setting different standards within a given class group.
- b. The sectioning of classes on basis of ability.
- c. The more or less complete separation of the superior group from the others in the college, with respect both to subject matter and to methods of instruction.

a. *Informal recognition.* Recognition of the needs of superior students by teachers in their classroom procedure finds expression in a multitude of ways. Insisting on a superior type of recitation, requiring an extra paper calling for independent study, and greater leniency in cases of

absence will illustrate. Names of superior students are put upon special lists, like the "Dean's list" at Harvard. Appearing on such a list is primarily an incentive or honor, but sometimes allows certain freedom from restrictions and requirements applicable to the rest of the student body, such as excuse from examinations in courses, or superior students are allowed freedom from the regular requirements and encouraged to take up independent studies, or they are given modified sets of problems in laboratory work. In short, in the absence of any administrative plans for meeting the needs of students of superior ability, the more alert college teachers everywhere seek every possible means of keeping these students working up to their maximum capacity. In fact, a few college teachers were found who believe the problem is so completely one of individual treatment that no other device should be sought than to allow and encourage college teachers to differentiate in their requirements so that the students of superior ability would be given the sort of thing they can best do. In a great majority of conferences, however, college teachers held that this informal method of treatment is entirely inadequate and that American education is losing its chance in the development of leadership unless it finds some way of doing greater justice by students of superior ability.

b. *Sectioning classes.* Throughout the history of college education, there have been spasmodic trials of the plan of sectioning the class on the basis of ability. Never before, however, has the movement gained such widespread acceptance as in the past decade. The theory seems to be fairly generally approved and it is mostly a question of working out the best methods of determining the abilities which should be the basis of sectioning classes. Practices in this respect vary widely.

In Grinnell, in the University of North Carolina, and

in the University of Minnesota, freshman English sections are organized on the basis of ability at the close of the first week. Evidences of high school English work and of formal and informal papers are used, and in North Carolina, the results of psychological tests also. In Grinnell outstanding freshmen are admitted to the sophomore composition class instead of the freshman section for superior students.

In Cincinnati University the tests which determine the section into which students enter in English are given in the high school and on the basis of these tests students register for the appropriate section.

In other places, sectioning takes place some weeks after enrollment.

While sectioning is perhaps most common in freshman English classes, it is not uncommon in mathematics. Perhaps the commonest practice in mathematics is that followed at Grinnell where sectioning takes place after the first six weeks. For more details concerning practices in sectioning classes reference is made to Mr. Seashore's article cited above.

c. *Separate treatment.* In the administrative schemes for varying both subject matter and methods for superior students, we have the most serious effort on the part of colleges to meet this situation. These schemes will be considered under three heads:

1. Graduation with honors
2. Special courses opened to superior students
3. Special curricula and methods for the superior group

(1) Graduation with honors is a distinction commonly awarded students whose marks in college have come up to a certain standard. The three grades, cum laude, magna cum laude, summa cum laude, are used in a great many

institutions for designation of those whose averages throughout the four years reach certain points. At Stanford the best one-twentieth of the class according to marks is graduated with "great distinction" and the next one-tenth of the class is graduated "with distinction." Or in the case of those institutions having the quality credits or honor point systems, these distinctions are awarded on basis of so many honor points, as at Carlton.

There is some recognition of other factors than high marks in the awarding of these distinctions, such as the requirements of a vote on each individual student by the major department faculty, as at Smith College, or by the whole college faculty. This vote is intended to depend upon evidences of breadth of interest and scholarship which cannot be adequately measured by the completion of course after course with a high mark. This tendency of demanding other evidences than simply high marks has found expression in requiring final examinations over an entire field of concentration, as in certain departments at Harvard or the addition of extra course requirements as at Oberlin.

Occasionally, it is resulting in changes in the type of requirements for graduation. This may be illustrated by the Minnesota practice where students who elect to become candidates for graduation, magna cum laude, take in lieu of electives certain additional courses or independent reading in fields allied with their major. They are expected to pass examinations on this extra work. If they wish to become candidates for graduation, summa cum laude, they must elect to do a piece of independent study resulting in a thesis.

(2) A not uncommon form of this practice is the introduction of certain *honor courses*, open only to students of high scholarship. These are supposed to be conducted so as to demand certain originality and initiative. Mills Col-

lege well exemplifies this practice. In the University of California many departments advertise a distinct set of requirements for candidates for honors and many of the departments conduct a few courses open only to students who are candidates for honors.

(3) The adaptation of *special curricula and methods* to superior students is a recognition that a distinct type of work is necessary for the development of students of superior ability, and it calls for the distinct departure from the scheme of uniform education for everybody.

In Harvard, the tutorial method of instruction, while designed primarily to prepare for the comprehensive examination over the field of concentration, helps also to meet the needs of students of varying abilities by adapting the requirements of the tutorial work to them. It is a generous supplement to group instruction to develop to the maximum the powers of each individual student.

Where group instruction is still thought to be reasonably satisfactory for the majority of students, or at any rate, where colleges feel unable to adopt a plan of individual tutoring for the whole student body, there is still the possibility of adopting a plan which will give greater opportunity for initiative and independence to those students who need that type of study most and who will profit by it most. The variety of ways in which it is being worked out in colleges is too great to detail here but a few cases will illustrate the types.

In Cincinnati, a student who believes himself capable of more intensive study than the average is relieved of ordinary grades and restrictions if he elects the course for honors. This he does at the beginning of his junior year by notifying the dean of the college. After receiving the approval of the head of the department of study in which he intends taking honors such a student must register for

his chosen courses in the regular way. The head of the department which the student chooses as his major reports each semester simply whether the studies which the student has been pursuing have been accomplished with distinction. In other words, the student is allowed to work out his plan with the head of the department and when he satisfies the head of the department that his work is satisfactory no other requirements need be met. In the courses taken outside of the major department grades must be earned in the regular way and reported by the teachers concerned to the registrar. A student who fails to pass the department's requirements for honors, if he wishes to receive the regular degree of Bachelor of Arts, must withdraw from the honors course and fulfill all the requirements of the regular course. The degree is designated as "extraordinary degree of Bachelor of Arts with honors" or "with high honors in _____." The names of students having such degree constitute a "Roll of Honor" in the university.

In the University of Washington the faculty committee on honors recommends to the faculty approximately the best ten per cent of the junior class determined upon the basis of intellectual maturity and scholarship. If this group during their senior year show satisfactory qualities of independent study they may be recommended by the same committee to senior scholarships and elected by the faculty. When so elected senior students are relieved from attending regular hours of assignments and their work is done under special direction of their instructor. Such a scholar is required to pass a comprehensive examination covering senior work.

In North Carolina, honors are of two grades: Graduation with Honors and graduation with Highest Honors. To obtain either distinction students must register before October 15 of their junior year with the Committee on Degrees

with Distinction. A plan of study will then be approved by this committee and such students have the guidance and assistance of special instructors. Small groups are formed for the discussion of their particular concentration studies. This tutorial assistance is entirely independent of the conduct of the courses, and is designed to stimulate interest in study not required as a part of the regular class work. As a check on this outside work, a thesis and oral examination are required, the examination to test the candidate's knowledge of the whole field of concentration and also his proficiency in the special topic he has chosen for independent study.

Smith College follows the practice of giving graduation honors,—cum laude, magna cum laude, and summa cum laude, granted primarily on basis of scholarship plus a comprehensive examination. Three years ago a plan of special honors was instituted to allow special methods of study and special curricula in the junior and senior years to students whose first three semesters average at least "B" and who elect to follow the plan. Such students must satisfy the department or departments in which they seek honors. Even students falling below an average of "B," if they are *highly* recommended by the department, may enroll for the special curriculum, thus indicating the influence of other factors than marks. The main purpose of the special honors course is to throw students upon their own responsibility, giving them such aid as they may seek but carefully outlining the field of work to be covered and putting at their disposal such instruction as is adequate to help them in the mastery of this field. At the conclusion of the study a comprehensive examination must be passed.

In Wellesley, the plan of Honors in subjects has some things in common with the plan at Smith. The curriculum allows for greater concentration than other curricula, and

provides for a special faculty adviser for each candidate. The candidate is still required to pass the regular tests of the courses in the "field of distinction including examinations in these courses through the junior year." The comprehensive examination covering the "field of distinction" is given at the close of the senior year.

In Swarthmore College, students in certain departments are allowed to read for honors, but the students are chosen not on the basis of scholarship alone, but special aptitude for independent study. This is considered of more value than high average of grades. Such students are excused from ordinary examinations and course requirements. They are expected to spend two years in the mastery of a definite outlined field of knowledge over which they are examined at the end of two years' work. Their instruction is largely individual and it is expected that the main part of the work will be done independently. Honor students may attend as many or as few of the regular classes of the college as they desire and they are guided in this respect by the chairman of the division in which they are studying.

Mention was made in the chapter on curricula of the practically complete separation of the pass course students and honors course students in Canadian colleges, notably Queens University and Toronto University. In these institutions, while practices vary markedly among departments, the distinction of the honors course curriculum from the pass course curriculum is one both of quantity of material covered and of methods of instruction followed. In some departments honors course students are thrown largely upon their own responsibility to attend courses as they choose but are aided in every way possible by instructors in charge of their study. The main consideration is that they shall be ready to pass the very searching examination over the entire field of study.

3. OPINIONS.

In respect to special recognition of the needs of students of superior ability there was practical unanimity of opinion among college teachers and college students. Nearly all agreed that present methods do injustice to superior students, and college teachers were very ready to discuss the merits of any plan of organization of the college that would give a better opportunity of developing initiative and independence in this group.

A few typical quotations may help to indicate how strong this feeling is:

Dean Thomson, University of Washington:—"I deplore the absence of proper opportunity for the development of initiative and independence in the best students."

President Lowell, Harvard:—"Differentiation of education for superior students is absolutely necessary."

Dean Holmes, Harvard:—"A distinct method for superior students is absolutely necessary."

Dean Cole, Oberlin:—"Our present plan undoubtedly does least justice to superior students."

Scores of similar expressions of opinion could be cited.

Student opinion may be summed up by the statement agreed to by several students in conference at Stanford, that at present the better students tend to adopt lazy habits and that no intellectual ambition is developed in them in college. A quotation from an article in the *Stanford Cardinal* by Edward D. Landell, a senior student, seems to express the point especially well:

"A system which is necessary to spur on the average student may clip the wings of a born student. Detailed assignments, fortnightly quizzes and the like are necessary to keep the ordinary student occupied and working, but marks and quantitative standards only dampen the ardor and dwarf the imagination of the few intellectuals."

4. CRITICISM.

From the above it seems fair to conclude that the matter of recognition of individual differences is more strictly one of method than of curriculum. What is needed by the superior student is a chance to assume responsibility; to have the facilities of the college, including its instructional staff, at his disposal to aid him in studying what he really desires to study. For him to assume the attitude of a searcher for truth rather than to be in college to do what he is told, seems to be the essence of the needed change. Every student who can profit by this point of view in his work should be given a chance to be such a student.

Whatever methods can be adopted, whether by individual teachers in the informal relations between them and their classes; or by the administration in either devising different curricula with different methods; or dividing larger groups into sections on the basis of ability, looking to the more rapid development of this distinctive type of teaching for superior students, will be welcome. It will help in avoiding some of the harshest criticisms that are offered against the colleges, not only by the general public but by college teachers and by students themselves.

In several conferences the intimation was thrown out that this recognition of difference between the needs of superior students and average students might be worked out by having certain colleges adopt in their curriculum and methods those practices designed to appeal to superior students, while other colleges might adopt such practices as would appeal to average students, thus segregating the two groups of students by institutions. In other conferences where this question was raised a serious danger to American education was believed to inhere in this suggestion. Segregation within an institution so that students

attending any institution could have an opportunity to follow a course best suited to them was thought to be the only way consistent with the American plan of free education from the kindergarten through the university.

It is my own belief that a recognition of these differences within an institution and an adjustment of the institution's methods to accommodate both classes will result in the strengthening of the morale within each institution. On the other hand, I believe that the growth within our college system of certain institutions limiting their enrollments to a small percentage who can profit by the method proposed for superior students, would defeat the very purpose for which it is designed. Leadership in a society like ours depends not alone upon the opportunity to develop the qualities of mind which it is hoped the distinctive method of study above advocated will do, but also upon contact with all other types of people by means of which a sympathy and understanding of our total population may be developed. Leadership must ultimately be exercised among all types of people.

Studying for honors by whatever scheme it is done, is to date a function of the junior-senior years in American colleges. This suggests that it is a problem for the period of specialization or vocational training rather than for the period of general cultural training of the first two years of college. It may not be out of place to suggest that this is one other reason for a clearer distinction between the lower division and the upper division of the colleges.

5. NEEDED RESEARCH.

Experimentation with the many different devices and plans for recognizing individual differences is going forward rapidly in all parts of the school system. The thing most needed is the careful checking or measuring of the results

of this experimentation. For this purpose some agency operating on a nation-wide scale would be very useful, inasmuch as the various plans are under trial in widely separated institutions.

CHAPTER VI

MEASURING THE ACHIEVEMENTS OF COLLEGE STUDENTS

1. INTRODUCTORY STATEMENT.

Next in importance to the agreement among colleges as to their aims is the finding of suitable means for the measurement of their success in attaining those aims. Probably the aims will always be stated in terms of changes the colleges hope to bring about in the students, and so the measures of achievement in all probability will be mainly measures of the performance of students. These measures need to be in such terms as will allow for a statement of the change which the college is bringing about in the student. If information is the aim, then these measures must test the growth in information. If resourcefulness is the aim, then these measures must test the growth in resourcefulness. If economy and effectiveness in methods of study or learning are the aim, then these measures must test the growth of these mental qualities. If ethical living is the aim, then these measures must test the growth of ethical living. If all these things and as many more are the aim, then a scheme of measurement comprehensive enough to embrace them all must be devised before the college can be sure of its ground and make an effective appeal for continued public confidence.

Furthermore, whether we are always conscious of it or not, the tests we do apply for the measurement of our college work almost inevitably react so as to condition our

aim, particularly in the minds of students. A teacher or a department, or a whole college whose series of tests of achievement take no account of initiative or resourcefulness, cannot get very far setting up initiative or resourcefulness as an aim. Of course, testing includes many other exercises than the ten-minute quiz, the weekly, monthly or term examination. At any time and under whatever circumstances a student is made to feel the teachers' or the institution's approbation or disappointment a test has been applied to him.

However, the main evidence of the progress a student has made toward the goal set up by the college is the marks he receives at the end of a given term of work. What is needed to secure high term marks will become the great aim of the college in the mind of the student. Accordingly some attention is given in this study to (a) types of marking systems, (b) methods of defining marks, (c) schemes of credit for quality, honor points, grade points, etc., and (d) scholarship requirements in terms of marks.

2. CURRENT PRACTICES AND TENDENCIES.

a. TYPES OF MARKING SYSTEMS.

(1) *The percentage system.* Not so many years ago the system in practically universal use in all parts of the school system was percentages. This system assumed that 100% meant the answering perfectly of all the questions asked or the doing perfectly of all the tasks set. In other words, what the teacher expected was divided up into so many units, questions, problems, or the like and the percentage of those completed correctly was the easiest measure of the success of the student. Achievement under such a system was naturally understood to be a certain percentage of facts remembered, principles applied or degrees of skill

used. Ten questions made up the typical test and 9 out of 10 questions answered correctly meant a mark of 90%.

This system is still in vogue in a considerable number of institutions. It is likely to be persistent in remaining in institutions which depend almost entirely upon results of examinations for the marks given, as for example the Canadian institutions.

In Queen's University, to cite a concrete case, the dependence upon percentage is well illustrated in the matriculation examinations. A candidate for admission to the college of arts must have

1. A minimum of 50% in each of the 12 papers of the Pass Matriculation examinations.
2. One of the following qualifications:
 - (a) 75% in four papers of the Pass Matriculation, or
 - (b) 66% in six papers of the Pass Matriculation, or
 - (c) 50% in two subjects of the Honor Matriculation examinations, or
 - (d) The successful completion of the course at an Ontario Normal School.

Yale University and the University of Nebraska are illustrations of American institutions using the percentage system.

(2) *The pass-fail system.* This plan of having no other designation than pass or fail has had vogue in a number of institutions at various times but is now limited largely in its use to graduate schools.

(3) *The few-groups system.* Largely supplanting the system of percentages in the last few decades has come the system of using coarse groupings, thus eliminating the fine and what many teachers have believed are artificial dis-

criminations among the achievements of students. A step in the transition in many cases has been the abandonment of the single percentage and the use of multiples of five, such as 70, 75, 80, 85, instead of 70, 71, 72, etc. At present, however, a large majority of institutions have abandoned the percentage system altogether and are using a series of letters, such as A, B, C, and D for grades above passing, with E meaning conditioned and F meaning failure. Where such a system prevails regulations generally exist in which the conditioned mark may be raised to one of the passing marks, or on failure to meet these requirements, becomes a failure. In the same way an incomplete mark may be made good under certain regulations, or by the neglect to fulfill these regulations the mark becomes a failure.

Thus we have in general a system of four pass marks and a failure making a series of five. Some institutions have fewer than five and some have as many as ten. Reed College is an example of the latter.

b. METHODS OF DEFINING MARKS.

The percentage system has at least the virtue of definition. It presupposes tasks the doing of each one of which has a given value. The sum of all these values equals 100%. The percentage mark on a given paper is obtained by the addition of the values assigned to the answers on each of the subdivisions of the paper.

When teachers depart from this method of marking they are under the necessity of defining in some way what arbitrarily chosen letters signify. One of the chief problems which have confronted colleges in the adoption of the few-group system has been such definition. To the teachers who have been used to the percentage system the natural means of defining an "A" is to have it substitute for all the range of marks from say 91 to 100 and to have

"B" stand for all the marks from 81 to 90. Thus in many catalogs the letters are defined in terms of the old percentage system which they have replaced.

At the same time that this transition from the percentage system to the few-groups system has been taking place discussion has been wide concerning the distribution among people of the qualities called for in doing college work successfully. Except for the more or less selected nature of the group who attend college, it has been agreed that qualities making for success in college probably distribute themselves according to the curve of normal frequency which prevails for any other natural variation such as men's height or the length of pecan nuts from a given tree. On this assumption, there has been an effort in a number of institutions to define the marks used on the basis of the percentage of students, which on the above theory should fall in each of the given groups.

For instance, Baker University, using five passing marks, assumes this to be the theoretically correct grouping of those who pass: the highest group, 0 to 5% of the students, next group 20 to 25%, next group 45 to 55%, next group 20 to 25%, lowest group 0 to 5%.

In Oberlin College the standard announced as the highest group is 0 to 6%, next group 22 to 30%, next group 40 to 50%, next group 15 to 20%, next group 0 to 6%.

Stanford defines her four passing grades as follows: the highest grade applicable to approximately 15%, next 35%, next 35%, next 15%.

Dartmouth says 25% in the two upper groups together, 50% in the middle groups, 25% in the two lower groups together.

Other illustrations would serve to indicate only more clearly the present lack of agreement in the definitions of marks on the basis of the probability curve.

A good many institutions undertake to define letters with certain adjectives, as, for example, Smith College, where the highest group is high honor, the next group is honor, the next group is credit, the next group is poor and the last group is failure.

In Baker University the highest group is honor, next group superior, next group good, next group inferior, next group failure.

Perhaps the commonest series of adjectives for the four passing marks is: first group, exceptional; second group, superior; third group, average; fourth group, inferior.

Any such attempt, however, at defining marks is open to the criticism that no group of faculty people will have a common conception of the meaning of exceptional when applied to students' work.

Recognizing the need for a common understanding of the meaning of the various marks, a considerable number of colleges have adopted the method of making up term by term a distribution of the marks given by the various teachers in order that each teacher may know how his distribution of marks compares with the distribution of marks given by other teachers. This practice is followed, too, on the theory that a teacher then knows that if he is giving fewer high marks than the average teacher, either his requirements are higher than the average or his standard of marking is more strict or his students are not doing his work as faithfully as they are doing the work of other teachers. Under any circumstances, it is expected that this information will help him to bring his marks into line with the general average of the faculty group.

This activity should result finally in a definition of each mark on the basis of the percentage of students who can obtain it when its operation over a considerable period of years is taken into account. All of the institutions follow-

ing this practice of making up distribution tables testify that to give out to the faculty these distributions of marks has a tendency to iron out the more radical differences which are found to exist. In many cases there still exists considerable fear of giving too great publicity to these distributions, but college deans testify to the gradual vanishing of fears on the part of faculty members.

A casual study of these distributions of marks given by teachers in several institutions reveals first that there is still a wide range of variation among the teachers not only in the same institution but in the same department. This holds true of teachers teaching sections of the same class in the same department as well. It reveals, furthermore, that from institution to institution there is a very radical difference. For example, in Oberlin College out of the 21,600 marks reported in 1921-22, 2.8% were below passing grade. In Cincinnati University, in the College of Liberal Arts, during one semester, 1917-18, 18.8% fell below the passing mark. Other institutions show marked variations sufficient to suggest great need of defining college teachers' marks.

Another practice found at certain institutions, Minnesota and Grinnell are examples, gives promise of help in this problem of definition. Not only the distribution of marks as given by each teacher is made out, but the distribution of the marks given certain identical groups of students by teachers in the various departments as well. In Grinnell it takes the form of publishing for each teacher:

1. The number of students to whom grades are given.
2. The number of grades which are higher than all other grades for the same students.

These devices tend to overcome the tendency on the part of college teachers to feel that their students constitute an

exceptional group and, therefore, are worthy of marks varying from the normal.

c. SCHEMES OF CREDIT FOR QUALITY, HONOR POINTS, GRADE POINTS, ETC.

Periodically there have appeared in this country discussions of the subject of extra credit for a superior quality of work. Some fifteen years ago the movement seemed to take firmer root than formerly, with the University of Missouri adopting rather advanced ground. While the University of North Dakota was having rather unhappy experiences with her scheme of credit for quality the University of Missouri seemed to flourish with a scheme similar in all respects save one, namely, that Missouri gave publicity to the distribution of marks given by each teacher whereas North Dakota did not. The scheme contemplates giving for each credit hour completed with a grade of "A" an excess of say 0.2 of a credit. To each credit hour completed with a grade of "B," 0.1 extra credit. To each credit hour completed with grade of "C," 0. extra credit. To each credit hour completed with grade of "D" a minus 0.1, leaving 0.9 of a credit. Variations in these figures have occurred from time to time but the same essential principle is recognized in all such schemes. They are designed to enable superior students to complete their requirements in less than the regulation time and designed to hold the inferior students for more than the regulation time. This transmutes superior work into extra credits directly.

In spite of how sensible and simple such a system appears it has not found ready acceptance in many American colleges. Instead, a significant modification of it is at present obtaining considerable vogue. This modification is the use of a system of honor points or grade points

earned by high marks and carried along as a separate set of requirements in addition to the credits. For instance, requirements for promotion and for graduation are coming to be commonly stated now in terms of so many courses, or semester-hours, or quarter-hours of credits taken with so many grade points or honor points. Without the latter students cannot be promoted or graduated even if they have the required number of credits.

In accumulating these honor points or grade points practices differ somewhat, but in general it may be stated that a credit hour completed with a grade of "A" or the highest mark carries three grade points. A credit hour completed with a grade of "B" carries two grade points. A credit hour completed with a grade of "C" carries one grade point. A credit hour completed with a grade of "D" carries no grade points.

Where such a system prevails the common requirement is that as many grade points or honor points as credits are required both for promotion from class to class and for graduation. This essentially is the system in use at Cincinnati, Minnesota, Stanford, Vanderbilt, Swarthmore, and Carleton.

In Dartmouth and Ohio universities the highest group allows four honor points, the next group three honor points, the next group two honor points, the next group one honor point. A correspondingly greater number of honor points is required for graduation.

A significant practice at Stanford makes use of a combination of credits and grade points in what the regulations name "counts" and the scholarship conditions for remaining in the University are stated in terms of "counts." For instance, after the first quarter a student is put on probation, who obtains fewer than 22 counts, that is, credits plus grade points and is dismissed from the Uni-

versity if he fails to obtain 15 counts, that is, credits plus grade points.

In Minnesota, an additional step has been taken in allowing the excess of grade points over the required minimum for graduation to count toward the reduction of the required credits at the rate of five grade points per credit. For example, the requirement for graduation is 180 quarter credits and 180 grade points. A student who has 185 grade points needs to earn only 179 quarter credits for graduation.

It should be stated that in those institutions which have not adopted any system of honor points or grade points it is common to require for graduation that marks average a certain standard or that a certain per cent of them, say 75, shall be above the lowest passing mark.

According to an investigation (unpublished) made by Dean Royster of the University of North Carolina involving more than thirty institutions, about 2 per cent of students in general who earn the requisite number of credits for graduation are denied graduation because of low scholarship.

d. SCHOLARSHIP REQUIREMENTS AND PRIVILEGES IN TERMS OF MARKS.

Great variation exists among colleges with reference to the standards of marks required for (1) remaining in the institution; (2) being promoted from class to class; (3) graduation. No attempt will be made to give the details of these varying practices but certain cases illustrating the significant types will be cited.

(1) *Treatment of students obtaining low marks.*

In Baker University three inter-term reports for all students are required, primarily to discover those who are failing. Also a weekly report on all students whose

previous mark is of the rank of "Inferior" or "Conditioned" or "Failure." All such students are called into conference and it is one of the functions of the Dean's office to use such methods as he may see fit, from friendly counsel to permanent dismissal from the University to discourage poor work.

In Nebraska a student who at the middle or end of any semester is below passing in two or more subjects but less than one-half of his work is placed on probation. If he is delinquent in one-half or more of his hours of registration he is automatically dropped from the University.

In the University of Washington any student who at the end of any quarter fails in two or more subjects aggregating more than one-third of his registration hours is dropped.

In Vanderbilt a student is placed on probation if in any term he has as many as two failures and a condition or three failures. He is dropped automatically from the University on the third successive probation period.

The University of Washington illustrates the tendency to consider cumulative marks by the following practice: a student may not re-register at the beginning of an academic year if he has not made grades of A, B or C in at least two-thirds of his hours of registration for the past academic year. Thus even if a student has met the requirements for remaining in school quarter by quarter, he still may fail to meet the requirements for enrolling the succeeding year.

Methods of reinstating students who have been dropped from the university on account of scholarship may be illustrated by the following practices:

In the University of Washington, a student who has been dropped may be reinstated only on approval of the Board of Deans. If so reinstated the student's status is

that of probation, and in order to remain in school he is required to do passing work in all his subjects. A student who is denied re-registration on the basis of his low previous yearly average is eligible for re-registration after an interval of one quarter.

In North Carolina students who have been dismissed on account of scholarship may be readmitted only by special vote of the faculty or a committee of the faculty. The practice of both committee and faculty is to readmit a student if he has spent one quarter in effective labor of some sort while out of college.

In Harvard any student who in any academic year fails to pass in at least three courses with a grade above "D" in at least one of these will be admitted to college the following year only by special vote of the administrative board.

In Minnesota cases of probation, dismissal and reinstatement are handled by the Students' Work Committee and an effort is made to consider each individual case on its merits without a set of rules binding their action.

In general, it seems safe to say that readmission after dismissal on account of low marks is conditioned upon students giving evidence to the dean or faculty committee that they are ready to assume a serious attitude in respect to their work. As a part of this requirement it is usual to expect students to remain out of school at least one term and demonstrate by successful contact with some job that they have profited by the discipline.

The practice of placing students who are falling below a certain standard on probation has become rather common. The significance of the probation status is yet undefined in many institutions. In some, probation has no official meaning, but is regarded in the nature of a warning. In others, it involves definite restrictions such as withdrawal

from all extra curricula activities as in Cincinnati. Successive periods of probation usually lead to dismissal.

(2) *Treatment of students obtaining high marks.*

Just as there has been rapid growth in the attention paid to efforts to decrease poor work by warnings, probation and dismissal, so there has been a growing tendency to give greater recognition to students at the other end of the scale. Various organizations, fraternities, professional groups and the like, membership in which requires a certain standard of marks, are growing rapidly. A list of honor students is published and announced at commencement in many institutions.

At Dartmouth not only is a selective method of admission being used effectively but at the mid-semester reports of the freshmen, instructors are asked to indicate those of outstanding promise. The Dean makes a list of these students and notifies the entire faculty of them. He also calls them to the office that he may give them such encouragement as a personal interview allows. In case a student is mentioned by two faculty men as being of outstanding promise a commendatory letter is written by the Dean to the parents.

At Oberlin a list of all the freshmen ranked in order of their average first semester grades is made out and the highest tenth is published. In addition, a list of the highest ten students is also published. These lists are sent home to the home papers and the President writes a letter to each student so listed.

At the University of North Carolina notice is sent to parents of those on the Honor Roll.

Another practice of having a Dean's Honor List commonly for freshmen, less commonly for sophomores, is illustrated by Dartmouth where the following plan is used:

"At the close of the college year an Honor List is made out for all the classes, based upon the work of the year, and divided into three groups:

"The First Group, designated as Rufus Choate Scholars, includes those students who have attained a standing of 3.6 or more in the work of the year; the Second Group includes those who have attained a standing of 3.3 to 3.6 in the work of the year; and the Third Group includes those who have attained a standing of 3.0 to 3.3 in the work of the year."

A list published at Grinnell is known as "Grinnell Scholars." This is made up of those having at least 135 honor points.

These practices will suffice to indicate the attempts made by the colleges to encourage students in their efforts to secure high marks.

Students can in most colleges secure a record of their marks by calling at the office of the registrar after a given date, and it is still not uncommon for institutions to send to all students following each term a card indicating their standing in their various subjects. Less frequently but still commonly a statement of marks is sent periodically to parents of all students.

3. OPINIONS.

College teachers in general express considerable concern about the growing extent of machinery in the use of marks. They recognize also that the emphasis upon marks tends to concentrate students' attention upon following instructions of the teacher rather than developing a keen interest in study. It tends to emphasize among students the spirit to do what they are told and only when they are told. In other words, it builds up the "get by" spirit. This relation between the system of marking used and the achievement of worth-while aims by the college, is an

aspect of the problem which college faculties are beginning to give serious consideration to.

On the other hand, if a system of marks must be used for differentiating the various grades of work, then it is pretty generally agreed (1) that that system must be in terms of groups of students distributed approximately on the basis of the normal probability curve, and (2) that the marks earned must be allowed to have their effect in some way throughout the college period as well as by the assignment of honors at graduation time.

Opinions of students as to the part played by marks reveals a general consensus that students have been trained up in their preparatory schools to consider everything on the basis of the marks given by the teacher and that if such a practice had been broken off suddenly in college, probably many students would loaf along, particularly in their early years of college life. On the other hand, it was quite generally contended that most students could easily be led to work at their best without the use of marks in their upper division courses or studies of specialization. A different motive is admitted to be actuating students in the specialization courses than in general courses and the general opinion is that marks probably serve in many cases as a means of detracting from the genuine aim of education in the minds of advanced college students.

If this analysis of student opinion is correct it suggests another reason for a fairly clear distinction between the junior college and senior college divisions.

It is generally admitted, too, by both teachers and students that even in institutions where the practice prevails of publishing among the faculty distributions of marks of the various teachers, certain courses and departments gain the reputation of being "snaps" and students in considerable numbers have a tendency to choose for their

electives such "snaps." As to the percentage of students thus influenced, of course, opinions differ. Few estimate less than 25%, while some estimate that as many as 66% of students are influenced in the choice of their electives by the snap reputation of courses.

Student opinion is almost unanimous in attributing considerable responsibility to the marking system for the fact that very rarely do students think of education as anything more than following instructions. Whether or not this is correct, it is generally conceded by both faculty and students that there is little responsibility assumed by college students generally for their education outside of doing what they are required to do.

4. CRITICISM.

Qualities of mind and heart which are most important in the aims of colleges are but little recognized in the marking systems in present use. To be sure, examinations do sometimes call for discussions rather than just remembered facts and in those discussions there is an opportunity for teachers to give due credit to individuality, initiative and the like. On the other hand, the great emphasis today is upon the student's demonstrating a mastery of assignments and the principal tests are tests of memory. This is true partly because our general conception of education has only lately taken into account other purposes than imparting information, and also because tests of other outcomes of education are much more difficult to devise than are tests of memory.

Nevertheless, if we are to have a clear recognition of the wider aims of the college as set forth by the college people themselves and recorded in Chapter II, we must seek not only tests of these other outcomes but we must have marking systems that take fair account of them. What

has come to be common practice in the elementary schools must be used with adaptations in the colleges. In most elementary schools today the evaluation by teachers of the child's work in the common branches is but a small aspect of their evaluation of that child. Ratings in such qualities as initiative and self-reliance, self-control, courtesy, honesty and trustworthiness, coöperation, health and posture, orderliness, thrift, sense of civic and personal responsibility constitute the means whereby children in the public schools are made to realize that these things are a part of their education. If college students have not yet reached the age when they can be depended upon to seek education for its own value but must be spurred on by marks then some way must be found to make our evaluations include these other things which are at least as significant as the quantity of information learned in the various courses.

It is an open question at what age students can be thrown upon their own resources and can be depended upon to put forth effort for their own education. There is danger, however, that we may be postponing that age by our system of developing within the students the attitude of doing only what they are paid in marks for doing.

During whatever portion of the college period we must use a marking system, what shall the criteria for that marking system be?

- a. The marking system shall take account of the differences of aims in
 - (1) preparatory or tool subjects;
 - (2) cultural subjects;
 - (3) vocational subjects.
- b. Tests shall be as objective as possible, that is, as independent as may be of the influence of teachers' opinions.

In respect to differences called for by the different aims, the following general distinctions may be drawn. Tool subjects may be tested in the main by standardized tests and scales; information subjects may be tested by objective information examinations; cultural courses can be tested only in small part by either of these two means, but must wait on the development of other types of tests for any adequate measure of their outcome. The neglect of these distinctions in the past has been responsible in part for obscuring the true aim of cultural courses, and for regarding them as information courses.

Rhetoric or English composition is a tool. Tests can be devised or measuring scales constructed to evaluate a student's efforts to use correct English. With these tests or scales a considerable portion of the subjective, and, therefore, variable, quality of the rating may be removed. It thus becomes possible to compare with reasonable fairness the performance in English composition of one student with another, one class with another and one school with another. Standards may be fixed understandable alike by all competent teachers and students. It must be admitted that complete objectivity probably cannot be reached in these tests. However, that an improvement upon the present method is possible in respect to objectivity and, therefore, standardization, no one familiar with the development of the test movement doubts. If student achievement in composition could be measured in terms of some fixed standard, then the need for excellent, good, fair and poor as marks would pass away. Instead, a paper would be graded as to its punctuation, its grammatical form, its individuality of style or what not by so many units on the appropriate one of these standard scales. The goals could thus be clearly defined for both student and teacher.

Whatever may be done for the tool part of English may be done also for any other tool subject such as foreign languages, mathematics and the like.

Turning now to the measurement of information or vocational courses, in which class will fall much of the specialization or concentration study, the problem is more familiar. Most education has been treated as information and tested accordingly. Much is being said lately in the interest of making a better form of information test, one which will be subject to less variation when graded by different competent judges, or by the same judge on different days. Space will not permit of more than suggesting the names of some of the forms advocated:

- (1) The completion test—where the statement of fact is written out with one or more significant words omitted. The test is to supply the missing word or words.
- (2) True-false tests, where two statements concerning each fact are made, one true, the other false. The test is to check in each case which it is. In case this test is used, the measure is found by subtracting the errors from the correct answers, thus counterbalancing the factor of guessing.
- (3) The yes-no or one word answer tests, where the statement is made out with the omission of a key word, or where the answer calls for a yes or no. This form is subject to somewhat the same limitations as the true-false tests on the score of guessing.

The above will illustrate the common forms of the more objective tests. Others, more complex, are being tried, but are still in the experimental stage.

One of the main objections to the making out of careful, more objective tests such as enumerated above is the amount of work involved in preparing such a test. A suggestion for overcoming this objection grows out of the

practice current in certain professional curricula. Each state, with few exceptions, requires a bar examination for admission to the bar, and a medical examination for admission to the practice of medicine. These are uniform for all applicants from whatever college graduated. Thus one set of tests does for all.

It would seem possible to adapt this idea to most concentration fields. If committees from national organizations in the several callings were to reduce the essential facts of the courses to test form, perhaps assigning relative values to each unit of the test, then teachers could pick at random from this test book and make a test with a minimum of labor. If it is objected that students would get hold of the test book, the answer is, let them have it. If that proves a superior method for learning the facts of a course, so much the better.

How to test the results of cultural courses is the difficult question. That the current practice of testing them almost wholly on a fact or memory basis is inadequate, if not actually baneful, is quite generally admitted. If a student in a course in political science is able to answer all the questions of fact but is found to take no part in the government, or to take a dishonest part, the student should surely have had no credit for the course. The trouble in general is that the definite responsibility for social conduct cannot be laid at the door of any particular course or courses. Society recognizes a sort of ideal which all the influences operating upon a youth should enable him to attain. Just what part in that result a given course in, say, sociology, is to play is difficult to assign and doubly difficult to measure. Certain it is, that these cultural studies must join forces with the non-academic influences in a recognition of the broader ends of cultural training. The least we can do while waiting for more

adequate tests is to record as a part of the official evaluation of the student's work, the teacher's estimate of such qualities as are believed to be evidences of culture.

5. NEEDED RESEARCH.

- a. Statistical study of marks given by teachers. These should include:
 - (1) Distributions by teacher, department and school.
 - (2) Correlations of marks in various subjects with other criteria of ability such as intelligence tests, vocational success, or part taken in worthy non-vocational enterprises.
 - (3) Relation between marks and withdrawal from college.
- b. Experimentation with the development and use of the more objective forms of tests and examinations.
- c. Experimentation with substituting for grades and credits in individual subjects in the senior college a single comprehensive examination over the whole field of concentration.

CHAPTER VII

THE EXTRA-CURRICULA LIFE OF THE COLLEGE

1. GENERAL STATEMENT.

The importance of the extra-curricula life of the college is acknowledged by all thoughtful students of education. In these activities is opportunity for the students to display their initiative and to develop their leadership, qualities of which American society is in urgent need. How to capitalize these opportunities, and at the same time reinforce the curricula work is a problem facing every college, and important enough to merit the attention of the best college officials.

An extreme statement of the complete separation which it is claimed exists between the academic and non-academic life of students appeared in a thought provoking article by Mr. Wilbur C. Abbot, entitled "The Guild of Students" in the *Atlantic Monthly* for November, 1921. However, inquiry reveals everywhere present a tendency to bridge over the gap between the academic and non-academic. Perhaps a better way to describe the present tendency, is to call it the absorption of the non-academic into the academic. Debating is being made a part of the English department; the college paper a part of the journalism department; athletics a part of the physical education department. So far as this tendency is removing from students opportunities to assume real responsibilities, it is bad. So far as it is a recognition by the college of the place in the curriculum of things so genuinely significant

from the student viewpoint, it is good. How to incorporate all these things into the college régime and yet retain their values as character-builders, is the important problem.

2. CURRENT PRACTICES AND TENDENCIES.

The discussion of this topic must be confined to the form of control of these student activities. Consideration of the activities themselves must be omitted. An investigation of the values involved in student elections, parties, athletics, fraternities, and the like, would require years of study and volumes to report.

a. *Student government.* In practically all institutions there is some form of organized student government. The number of activities coming under the control of student government and the extent of authority vested in the student government vary greatly. So also does the method of selecting the governing group. Typical illustrations may be cited.

In Cincinnati University the student council consists of representatives elected by each class and the presidents of a list of student organizations *ex officio*. An executive committee of this larger council is chosen by the council and does a large part of the work. Every undergraduate student is required to pay \$10 into a students' activity fund, which is apportioned by the student council for the support of the various student activities. Free admission is granted to all undergraduates to all of the athletic, dramatic, debate, musical and other events coming under the council control. It was admitted by the students in conference that in spite of a careful system of auditing, managers of activities sometimes beat the game and appropriate funds to themselves. To guard this additionally

each activity chooses a faculty adviser who must sign all checks and the council elects an auditing committee of the students to audit all accounts at the end of the year.

Dartmouth may be cited as an illustration of a governing group selected from quite different point of view. A senior society called "Palæopitus" is charged with the general responsibility for activities outside of class work. Of course, each activity has its special committees and officers but "Palæopitus," made up of five members selected from the senior class, and seven ex-officio members who are heads of activities, such as baseball, track, and the like, is charged with the general college relationship of all these activities. Thus instead of having a council with chosen representatives of the various classes, Dartmouth uses a group of the older students who are supposed to guide the younger students in their observance of proper college traditions.

In Minnesota there is a student council for each college and then an all university student council made up of representatives of all the colleges. All important positions, such as officers of the daily and annual student publications of the university, as well as these representatives of the student council, are elected by popular vote of all the students making up the particular constituency.

In North Carolina the scheme recognizes the necessity of one body whose chief function is to develop proper student sentiment, while another body exercises the disciplinary functions of student government. The first group is called the Campus Cabinet, and is composed as follows:

- (1) The presidents of the four academic classes of the arts college.
- (2) One representative elected by the three upper academic classes of the arts college.

- (3) One representative elected by each of the professional schools.
- (4) One representative elected by the Pan-Hellenic group.
- (5) One representative elected by the Women's Council.
- (6) President of the student body.
- (7) General secretary and president of the Y. M. C. A.
- (8) Editor-in-chief of the *Tar Heel* and of the *Carolina Magazine*.

With this Campus Cabinet it has become a tradition not to formulate rules for conduct but to build up instead proper tradition which operates in campus life and by having representatives of all the active groups on the campus, it is hoped to keep public sentiment strong enough to control those who might be thoughtless or malicious.

The second group, the Student Council, a sort of executive committee of the Campus Cabinet, is composed of the

Presidents of the three upper classes.

One representative from each of the professional schools.

One representative elected from the student body at large is ex-officio chairman of the council.

One representative elected by the other seven members of the council.

In the hands of this group are placed all disciplinary matters necessary for maintenance of the unwritten laws of campus life.

b. *Relation of the faculty to student governing groups.* As indicated by Baldwin in 1915 in his "Present Status of the Honor System in Colleges and Universities," the amount of authority which student bodies can exercise is determined by the faculty. Whenever student control does

not conform to the essential standards held by the faculty final responsibility must be assumed by the faculty. However, in a number of institutions the faculty has voted to leave in the hands of students final authority over non-class activities carried on by the students. In general, however, it is the custom for the student council to report their recommendations either to the president of the university, as at Stanford, or to the faculty for approval. Only one institution visited reported through their student council any embarrassing refusals on the part of the faculty to approve recommendations of the student council. All others reported that the faculty is giving the students a fair trial in their efforts at self-government.

As an aid in maintaining high standards of conduct among students and to safeguard the institution against serious breakdown of student government, institutions use various devices for coöperating and aiding even where student government is in operation.

For example, Stanford publishes annually a statement of all receipts and disbursements of each student organization, giving names of the people to whom the money was paid and in general the items for which the money was paid. Ohio Wesleyan and Oberlin follow practices somewhat similar. This is merely a method of bringing the power of publicity to bear upon student financial transactions. In addition, a university official acts as treasurer for all these student organizations, but he exercises no jurisdiction over planning of expenditures nor auditing of accounts. He is merely a depository of the funds and pays them out on student orders.

In many institutions a committee, made up partly of students and partly of teachers, acts as a sort of clearing house for the discussion of problems of general university concern. This is the almost universal plan for handling of

athletics where the amount of funds is so great as to make it unwise to leave it wholly in the hands of the students. In some cases the faculty representatives of this committee are named from lists submitted by the student representatives.

This building up of higher standards of student self-control is also the main function of university deans of men and deans of women. In order to accomplish this purpose these officials are charged with various duties and responsibilities by the college administration, but in general their functions are to help develop student government rather than to remove responsibility from students.

c. *Limitation of participation of students in non-class activities.* With the growth of student government is coming a realization on the part of students that (1) student leaders may be overburdened with these responsibilities, and (2) that the value accruing from participation in student government should be passed around as much as possible. Therefore plans for the limitation of participation in these activities are becoming common as an aspect of student government. The systems in vogue range from very simple statements to the effect that any given student may not be chosen for two important offices at the same time to very complicated point systems in which each office which may be held by students is given a certain value in points. Limitation then is stated in terms of so many points as the maximum which any student may be carrying at any given time.

d. *An illustration of a type of service rendered by student government.* During the brief history of many American colleges, while the responsibility for student conduct has been presumed to lie in the hands of the faculty, unauthorized activities of one sort or another have grown up under student initiative, participated in by such large

numbers of students that faculty control and discipline have sometimes proved quite helpless. This has been notably true of various forms of class scraps. One of the most constructive services being rendered by student governing groups has been the substitution of well ordered and controlled occasions for these more or less unorganized and frequently deplored class scraps.

Carefully worked-out plans which allow for a minimum of danger to health and risk of bodily injury and a maximum of opportunity for the display of initiative and group morale have developed. No one will deny the need for some occasion which will draw class groups into close bonds of interest and mutual acquaintance. Only when groups have such esprit de corps, such intimate bonds of friendship, can they be wielded forcefully in the interest of any cause whether good or bad.

Space will permit of the mention of but one of these schemes. At Dartmouth in the late spring occurs the Freshman Picture Contest. Its rules are very simple. At an appointed date between the hours of 5:00 of Friday afternoon and 10:00 of Saturday forenoon the effort is to have at least forty per cent of the freshman class assembled in some place in Hanover Township and to have a group picture made and a negative for it deposited with the officers of the senior society of the college. This picture must contain no sophomores.

A careful consideration of the opportunities that such a contest provides for mutual acquaintance of the freshmen, for assuring recognition of those who are sophomores, for the need for complete secrecy and understanding of the plans to be carried out, for the active part each freshman can play in throwing sophomores onto wrong trails, will, I think, commend such a contest to the consideration of other student groups.

e. *Honor system in examination.* In the student control of cheating in examinations we have the activity which combines the curricula with the non-curricula life of the college. A quantitative statement, as well as a summary of opinions, is given in Mr. Baldwin's study referred to above. No rapid change in the status of the honor system since the compilation of that report seems to be in progress. Several institutions have put the matter to a vote of the students recently, and the students have refused to accept the responsibility of the honor system for examination where that system has carried with it responsibility for reporting violations. This is true at Cincinnati, Dartmouth and Kansas University.

On the other hand, Stanford voted favorably two years ago and is now working under the honor system.

The usual regulations under which the honor system operates require students to report to a discipline committee of their council infractions of the honor rule in examinations. Regular provision for the trial of the offenders is provided for and punishments are instituted. Sometimes these decisions are considered final but most often they are subject to approval of the president of the college or the faculty.

Exceptions to this rule requiring reporting of offenders may be cited. The University of California has what is advertised as the honor system but does not have the machinery among the students for trying offenses. It is the hope of the students and faculty there that the tradition of honesty in student work may be built up on the campus; that students will come to frown upon any dishonest practices of their fellows. It is believed that to build up such a tradition it is necessary for the teachers to put students upon their honor in examinations. Therefore, even without the pledge of reporting,

teachers rarely ever remain in the room during examinations.

Another modification is in the newly organized "Freshman Year" at Yale. Upon entering the freshman class each student is required to sign the following pledge:

"I hereby pledge my word of honor to support the honor system while a member of the freshman class of Yale University."

There is an early meeting of the class at which the pledge card is signed and the whole spirit of the matter explained. While no formal system of reporting is provided for, each student is bound at all times to do whatever he thinks is pertinent toward carrying out the system. There is provided a discipline committee to which students can report offenders, and it is generally expected that they will do so, particularly in the case of a second offense by a student. Such report is in fact made a part of the plan.

Oberlin's women students are required to sign a pledge promising loyalty to the women's student government.

A considerable proportion of institutions working under the honor system require that each student sign at the end of each written examination a statement to the effect that he has neither given nor received aid in the preparation of the exercise.

3. OPINIONS.

General problems of student government and the honor system were made the basis of the largest share of time devoted to conferences with individual students and groups of students at the various colleges visited. The questions discussed with students were:

- a. The values which they place upon extra-curricular activities.

- b. The effectiveness of student government.
- c. Their attitude toward the honor system.

Almost without exception the students attached real significance to their participation in extra-curricula activities. In these activities they found real life situations. They believed that by them were developed qualities called for by life outside. From their demand for honesty in their own affairs they believed would come a demand for honesty in affairs outside. Willingness to assume initiative in their own affairs would lead to the display of initiative in life. Certainly the same kind of social leadership demanded in their own activities was called for in the handling of social problems outside. They were, therefore, almost without exception in favor of a wide variety of student activities outside the curriculum.

While they did not object to any sympathetic suggestion or guidance on the part of the faculty, they were almost unanimous in their belief that if faculty control were substituted in any large measure for student control the essential values would be reduced or eliminated. The fact that the responsibility was felt largely to be in the students' hands gave to these activities their greatest value.

Where time permitted the question was asked of college teachers also as to their estimate of the value and danger of extra-curricula activities. While too few conferences covered this question to make the data conclusive, it may be recorded that the majority of those to whom the question was put realized the theoretical value of student control of activities but were not sure about the possibility of success. While expressing genuine appreciation for the values which attach to extra-curricula activities, these college teachers acknowledged that there was wide difference of opinion between teachers on the one hand, and students

on the other, as to the control of these activities, and the amount of time which may properly be devoted to them.

Similarly, students expressed their disappointment that extra-curricula activities seemed to be "tolerated" by the faculty instead of actively supported and that one of the chief embarrassments concerning their control by the students was the feeling constantly present that these activities existed on sufferance of the institution rather than as a part of the plan which the institution believed in for the education of the students.

The following question was asked on the sheet submitted to alumni in connection with their underscoring the activities in which they had taken part: "Do you believe the time you devoted to these activities is proving profitable to you now?" 452 said "yes," while 29 said "no." This indicates that these people ten years out of college are friends of student activities.

In answer to the question, "What are the chief values you gained from these extra-curricula activities?" it is surprising to note that the answers lay stress upon mental and social values rather than on physical values. This is true even of those alumni who were active in athletics in college. From the answers it would appear that the opportunity to react to real life situations, intellectual and social, in ways which called for them to assume responsibility is still the aspect of training prized by them.

In the letter sent to well known alumni the question was put in this way: "Are extra class activities being stressed too much today?" 37 people answered the question more or less directly. Of these, 15 said "yes" and 7 said "no," while the remaining 15 qualified their answers so as to make it clear that they did not discount the value of extra-curricula activities but thought there should be some sort of limitation so as not to confine the value to so small

a number and so as not to burden the few who participated. The testimony of this group, however, is to the effect that there is too much stress today on extra-curricula activities. Whether this response indicates a real difference of opinion between these thirty-seven well known alumni and the four hundred eighty graduates of about ten years out of college is not sure, because the questions asked the two groups were not identical. At any rate, it is probably true that from the age of thirty to fifty years the enthusiasm for "college life" wanes.

Two other questions were asked the alumni: (1) "Do you favor the principle, if wisely safeguarded, of special college recognition in the form of credit toward graduation for students who hold responsible positions in the more time consuming student activities?" The answers were, "yes" 221; "no" 151. Many took occasion to say that "too much is done for credit now," and others underscored "*if wisely safeguarded*," thus showing an understanding of the problem involved. In spite of that, however, the majority felt the injustice of asking students to do these arduous services and carry a full load of study besides.

(2) "What suggestions do you have for the betterment of non-class activities in college?" The answers defied classification. The following five ideas seemed to be the ones mainly stressed, however:

- a. Limit the amount by some "point system."
- b. Extend the advantages to larger numbers; (a) without suggesting method, or (b) by requiring participation.
- c. Increase democracy in the control of activities by abolishing "cliques," secret societies, etc.
- d. Increase faculty supervision and control.
- e. Make participation dependent upon maintaining high scholarship.

On the question as to the effectiveness of student self-government, sentiment seems to differ considerably among students from institution to institution.

In Harvard, it is contended that the actual amount of interest taken by the student body in student government is so small that the participation of the student body means little in the way of assuming responsibility. Even the members of the Student Council themselves leave the main responsibility upon the few officers of the Council, who are thus overworked in carrying on the heavy labors of the Council.

In Baker University, the Student Council members feel that the student body take a keen interest in student government and that practically complete control could very well be exercised by the students.

At Grinnell, since the building of the dormitories, student government among the women is very effective and Miss Reed, Dean of Women, feels confident that the students could assume practically full responsibility for all necessary extra class activities where the dormitory plan of housing prevails, if the faculty could be persuaded to really trust the students fully. On the other hand, it appears that even though a considerable proportion of the men students in Grinnell live in dormitories, yet the men have taken but a passing interest in their organization of student government until quite recently. A new plan which makes use of a senate and a court seems to be having a strong influence now.

In general, it is agreed among students that the same factors which operate in society at large operate in the colleges with reference to the fairness and democracy of student elections. A considerable influence is exercised by organizations, such as fraternities, but this influence is frequently the impetus for the close drawing together of

many other groups in the effort to control student affairs. Even where so-called "bad politics" operate in the elections, in general, men of considerable force and influence are put up for office. Rarely ever in colleges does a man who is wholly unworthy secure nomination by these political agencies.

In the University of Washington, the student government seems to be not only very inclusive as to the activities involved, but very effective also in handling cases. A small discipline committee of three seniors is charged with passing sentence upon all violators. They have established a tradition which makes service upon this committee an honor and their findings range all the way from admonition, probation, adding credit requirements for graduation, etc., to permanent expulsion. All these sentences are accepted by the faculty as practically final and students seem to assume the responsibility in a genuine spirit.

Student opinions also differ widely with reference to the honor system. In one thing only is there practical unanimity, namely, that even where the system contemplates reporting of offenders by students this expectation is not fulfilled by more than a very small per cent of the students. In general, only those who are charged with responsibility, such as the chairman or other organization officials, will actually report cases of cheating to student committees. In spite of this, however, in a majority of cases where the honor system has been in vogue for a considerable time both teachers and students seem to agree that it is on the whole an effective means not only of reducing the amount of cheating in examinations but also of giving to students a feeling of responsibility and other significant values in education.

There are evidences that students will assume re-

sponsibility for bringing to terms students who violate the honor code where they are not pledged to do so. For example, in both North Carolina and Vanderbilt cases were cited where older students who observed students cheating either went at once to the student and tore up his paper in the presence of the class or reported the offender to his fraternity and the fraternity took drastic means to discipline the student.

In Stanford, where the system has been in operation but two years, student opinion is almost unanimous that rarely will students report offenders but they are equally unanimous in declaring that the amount of cheating in examinations has been materially reduced. An interesting side light on this is their report that, since the student constitution applies only to written examinations and tests, they believe there has been no reduction in the amount of "cribbing" in note books and other written exercises by the adoption of the honor system.

Many students believe that, while students attach some significance to signing the certificate of honesty required on examination paper for the first few times, in general, students who would cheat would not be deterred from cheating by the requirement of signing a statement that they had not cheated.

In going from student group to student group the impression grew upon the interviewer that the formal adoption of the honor system by students without any formal pledge of reporting but with an expectation that students would take such steps as were necessary to stamp out dishonesty would operate in the building up of a tradition of honesty such as would make cheating very unpopular on the campus. There would need to be a disciplinary agency to handle cases of violation of this standard the same as of other campus standards, but to make honesty

a tradition the same as other fair play would seem to be served by including it in the list of campus standards of conduct without any special machinery for its detection, reporting and punishment. At any rate, it was quite generally agreed that to have teachers or proctors in the room serves as a sort of antidote to dishonesty and that any amount of cheating with which a student could "get by" under those conditions was not dishonesty but merely an exhibition of cleverness in which the student was victor over the teacher or proctor.

4. CRITICISM.

College life has its many interests just as adult life has. The requirements of the curriculum are met by students in much the same spirit that earning a living is met by the adult. That is the main job. However, just as an adult carries his obligation as a citizen and has his leisure hours to take care of, so has a student. He has his responsibility as a citizen in the college community and he must care for his leisure life.

Most of the social problems of the day have their origin in this civic and social aspect of adulthood. Leisure is becoming a larger and larger social problem. Training for taking one's place in civic and social affairs is augmented very much by the part which young people play in their own community affairs while in school and college. Life in a democracy calls for the assumption of responsibility by each individual and training for such assumption of responsibility probably calls for a considerable actual control by students of extra-curricula affairs. It probably calls also for an increase rather than a decrease in the amount of responsibility placed upon students in their curricula affairs as well, but that is a separate problem.

Just as Americans are beginning to tire of the multiplicity

of laws regulating their conduct and are commencing to demand a greater exhibition of control by social pressure, custom, tradition and education, so students are feeling the need for simplicity of their machinery of government and the need for building up on the campuses a code of conduct, violations of which will be met simply with social disapproval rather than with actual enforcement of a specific punishment. Accordingly practices on college campuses are frequently taking the form of statements of standards of conduct, sometimes written and sometimes not even written, and student officers are empowered to pass judgment upon offenders, not on the basis of a specific written code but on the basis of the good of college life. This movement speaks well for the development within students of a capacity for self-control which will make them more effective leaders of the kind that are needed in America today.

Similarly honesty in examinations may prove to be best enforced in the long run by the establishment of a tradition rather than the enforcement of a law. A trying period of transition may have to be passed through to get from one status to the other, but the happy experiences enjoyed by certain institutions which have had the honor tradition long established in comparison with those institutions which are still struggling in the effort to enforce the law of honesty makes one pause to inquire whether it may not be worth while to make a considerable sacrifice in passing through the period of transition.

5. NEEDED RESEARCH.

- a. Statistical studies showing relation between success in each type of extra-curricula activity and (a) in the curricula work, and (b) in social and vocational activities after graduation.

- b. A study of the forms of student government which seem to function best in the several types and sizes of student bodies.
- c. Continued experimentation with honor systems with careful observation of results.

CHAPTER VIII

GENERAL SUMMARY AND CONCLUSIONS

1. COLLEGE AIMS.

The college period is but one part of the whole scheme of education. There is no clear demarcation between the aims of the college period, and the aims of the period below. There is practically a unanimous agreement, however, that the largest function of the college of arts and sciences is its liberalizing training in preparation for effective social and civic life, outside one's vocation.

Supplementing this central function there is on the one side, the necessary continuation of the preparatory or tool subjects to be pursued as far as the need for them dictates with each student. There is on the other side, the definite vocational or professional training to be begun at such age as each student finds it necessary. The longer such vocational training may be postponed, the greater can be the study of the world's culture.

At whatever time this vocational training is begun, it is recognized that a new motive actuates the student, and that accordingly different methods of teaching may properly be used.

The most essential point to be remembered is the differentiation called for by these three different aims of the college, preparatory, cultural and vocational, in respect to (1) materials of instruction, (2) methods of teaching, (3) training of teachers, and (4) plans of evaluating student work.

2. COLLEGE COURSES AND CURRICULA.

Modern tendencies point unmistakably to the clearer separation of the junior college work from the senior college work. The chief function of the junior college is cultural, and requires organization and methods designed for that end. The chief function of the senior college is vocational, or specialization study, and its materials and methods should be selected accordingly. The combining of these two into a single college organization has led to many unsatisfactory treatments of both groups. There is a universally recognized unity between the cultural purposes of the senior high school, and of the junior college, and there appears to be little psychological argument for the separation of the work of these two periods and its division between two institutions—the high school below, and the college above.

For most students, the cultural period will probably close with the completion of the work now offered in the first two years of college, and it would seem logical that this point as a terminal in education, should be emphasized more than it is at present. A great many students now end their college training at this period, but they are made to feel that they are somewhat misfits, because they do not complete what is popularly regarded as a college course. If their graduation came at the end of the junior college period, they would then be free to decide whether they should still continue further study either in the fields of general culture or in preparation for some vocation.

Many of the vocations into which these graduates of junior colleges should enter are not prepared for in college curricula, but instead are prepared for in apprenticeship. Very likely the future will see public education include the preparation for all these callings, but it is doubt-

ful whether these vocational curricula will be in connection, in many cases, with colleges of liberal arts. Even if they are, they will be quite separate in function, and their presence will not interfere with the logical closing of the liberal arts period as indicated above.

The curricula of the senior college already have a vocational function in the minds of the majority of students. Probably they will come to have a vocational function in the minds of an increasing proportion of teachers. Specialization for this purpose will call for a unified curriculum, rather than for a group of sequences of courses within given departments. These unified curricula will be based upon clearly mapped out fields of knowledge, and degrees of skill required by the various vocations. Success in the completion of these curricula will be tested only incidentally by examinations in courses, but mainly by comprehensive examinations at the completion of the curricula.

3. EDUCATIONAL GUIDANCE OF STUDENTS.

The proper guidance of students involves two problems: First, the analysis of student aptitudes and abilities, and second, the adjustment of the curricula and plans of the college to take into account these student aptitudes and abilities. Psychologists are at work upon the former problem, and some little progress has been made.

It is found that student interests turn very often on the question of their prospective vocations, and therefore vocational guidance is one of the most important aspects of educational guidance. Preparing statements as to the advantages and limitations of various vocations, and getting these into the hands of students is a rapidly developing activity. Contact between students and experts in the

various vocations, as well as general vocational guidance experts, is also making considerable progress.

The general counsel of students by faculty members, in an effort to have their enrollment in courses best fitted to their needs, and in order to help them in whatever personal problems arise in their college environment, is calling for the training of a considerable number of college teachers in these particular lines. The biggest stumbling block these teacher-counsellors have to overcome is the imperfect adjustment between the work that is offered by the college and the work which these counsellors feel that students need. This is mainly due perhaps to the fact that the college is designed to satisfy only a certain narrow range of interests, while all types of graduates from high schools, with a much wider range of interests, come into the college. Our system of public education, in other words, is not a system of education, but a group of independent institutions which do not fit together, and which leave many gaps unoccupied.

4. COLLEGE METHODS OF TEACHING.

According to the testimony of college teachers themselves, supported by senior students and alumni, methods now being used in college courses are not entirely satisfactory. The lecture type of teaching in those courses where thinking and participation are essential for the main outcome, is an unsatisfactory method. This is true of most cultural courses and particularly true of courses in the social sciences. In spite of this fact, the social sciences and history are the departments making widest use of the lecture method. These departments are making their tests, primarily, tests of information, memorized from the courses, both lectures and readings. Probably this method cannot be justified.

What teachers frequently call discussion turns out, upon inquiry, to be questions by the teachers and answers by the students. There is an amazing absence of initiative on the part of students in the conduct of the vast majority of courses. This is true in spite of the fact that the alumni regard as most valuable that teacher who expects most initiative from, and allows most independence to, his students.

Ineffective methods of teaching are due, more than to any other fact, to a failure on the part of teachers to recognize the distinctive aim which the given course should achieve. Preparatory or tool subjects call for one method. Cultural subjects call for another method. Vocational courses call for another method. These differentiations have not been made commonly, and this fact is responsible for a goodly share of their difficulty. Teachers of cultural courses particularly must be interested in students first, and in their subject matter second. This calls for not only wide cultural training, as distinct from high specialization, but it calls for knowledge of sociology, psychology and pedagogy as well.

In vocational courses, the main requirement is thorough understanding of the field to be studied. Strong personality and wide cultural and pedagogical training of the teacher play a much smaller part than in cultural courses. In preparatory or tool subjects such as the languages and mathematics, methods are determined by still different criteria, the test being the students' ability to use these tools in a study of cultural or vocational courses.

The main fact is that college teachers have not in large proportion come to understand that some method of teaching, carefully devised for the accomplishment of the particular aims of each course, must be sought out and followed.

5. MEASURING ACHIEVEMENTS OF COLLEGE STUDENTS.

Up to date marks in college have been used to a large extent as a sort of prod to greater effort. This merely continues the prevailing function of marks in earlier stages of the school system. In order that this function shall be served the better, all sorts of devices, such as publishing lists of failures and honor students, the creation of schemes of credit for quality, grade points, honor points and the like, are coming in to complicate the bookkeeping of the college administration.

Here again one of the chief difficulties lies in a failure to distinguish between the methods of evaluating work of different types, and for different ages of students. Little progress has been made in college in the application of the more scientifically devised methods of measuring achievement. Such standardized tests are possible for subjects of the preparatory or tool type. Furthermore, our ordinary sorts of examinations, with suitable modifications, are appropriate for vocational courses, which are to be tested primarily on the basis of information. For these information examinations, certain plans for increasing objectivity are possible.

The tests for cultural courses are the ones which are most difficult. All the qualities of character which society hopes that a study of cultural courses will develop, are almost entirely neglected when teachers of cultural subjects evaluate the results of their labors. If resourcefulness, ability to assume leadership and responsibility, if intellectual fearlessness and moral courage are the qualities which American citizenship is calling for today, then colleges in their cultural courses are under obligation to give weight to the display of these qualities in their students. There is occasional recognition of the place of these

qualities, but such recognition has been slight to date. Sociologists are commencing to give some thought to their responsibilities in this field, and we may hope for better things as they busy themselves with the problem.

6. THE EXTRA-CURRICULA LIFE OF THE COLLEGE.

There has been a rapid growth in the last few decades of the part which student government plays in the administration of the college. Many student activities deplored by students and faculty alike, have continued through a century of college existence, but are being abolished now by student government. In their places are being instituted well organized, and well regulated activities free from most of the deplorable aspects of those activities they replace. These, too, have values appreciated by students and by most college teachers.

The assumption of responsibility by students in matters of student government depends much upon the nature and size of the student body. In most institutions, however, student government, with the active coöperation of officers such as deans of women, and deans of men, is having a larger and larger share in making the extra-curricula life effective.

Because of lack of training for leadership in public schools and in colleges, gifted leaders are none too abundant among college students. Consequently, there is a tendency to overburden the few. Student government is working out plans for the limitation of participation by the few, and is securing the participation of a larger and larger number of students in extra-curricula activities. In this effort students complain somewhat that college faculties are not as genuinely sympathetic as they would like to have them, but that instead, faculties assume an attitude of toleration. Students plead for coöperation as

earnestly in their enterprises, as the teachers plead for co-operation from students in the academic enterprises.

In the honor system for the conduct of examinations, very little reporting of offenders by the student body at large is secured. However, even where systems do not depend upon reporting an offender, it appears there is a growing spirit of honesty among students where the honor system is in operation. The effective agency for control of dishonesty in examinations is campus opinion and campus tradition, and not courts of inquiry. Whatever will build up this campus tradition is worth paying a considerable price for.

7. NEEDED RESEARCH.

In the foregoing chapters much is said of research needed to shed light upon the separate aspects of the problem of the college. These suggestions taken together, however, do not constitute a program of research adequate to meet the situation. In addition we need to conduct investigations broader than any of these aspects taken alone. I wish to suggest what seem to me the most important of these investigations.

a. We need to have an experimental school of college rank, unhampered by the ordinary limitations of college organization. In this college would be carried on experiments to demonstrate the truth or fallacy of present assumptions concerning college education.

b. Before progress in any field can go very far, fairly objective measures of the output must be devised. The development of standardized tests and scales for tool subjects, and the development of fairly objective tests or examinations for information subjects will probably become available within a reasonable time. What is much more difficult to test is the results of the cultural phases of our schools. We have a general impression as to what cul-

tural education should lead to, but to measure the effectiveness of our work in reaching those goals has so far baffled educators.

As one way of approaching this difficult but important problem, I suggest the following:

(1) Secure a list of a few thousand representative people in various parts of the country, as for example, a random sampling of the readers of the *Literary Digest*, or some other standard publication of that type. Address a communication to these thousands, asking them to submit the names of the three persons in their local communities who, in their judgment, represent the highest type of social and civic citizenship. This list of persons will be assumed to constitute a representative body of persons whose judgment on the importance of the various phases of culture is valid for American conditions.

(2) To this list of persons address a communication, enlisting their coöperation in an attempt to make a sort of job analysis of an educated person's life, aside from his vocational interest. They will be asked to tell of the type of high school and college education they had, the institutions attended, and to evaluate the various elements in their training from the standpoint of their value in producing a high standard of social and civic efficiency. They will then be asked to give relative weights to a list of the various qualities such as social-mindedness, intellectual independence, perspective based on information and experience, moral courage, etc., which their non-vocational life calls upon them to exercise. These we believe the cultural work of high school and college should strengthen. By this means it is hoped that an analysis giving proper weightings to the qualities which go to make up culture could be established. Then we should have a

basis for making more specific the demands upon high schools and colleges to produce these qualities.

If the results of these inquiries indicated any considerable number of men and women trained in particular institutions, intensive studies should be made of those institutions to determine what the secrets of their strength were at the time these individuals were attending them.

(3) As a companion study carried on simultaneously with the above, we should have an analysis of high school and college life with the view to determining where the various qualities called for in efficient living are exercised. This study would reveal the method of adjustment of this cultural period of training to the needs indicated by the analysis suggested above. In this survey we should have the basis also of determining where suitable tests of the success of colleges in developing these qualities could be applied.

From the results of (2) and (3) together we should have the materials for deriving such tests as prove practicable for determining the relative success of institutions in achieving the real aims of cultural study, and thus lay the foundations more securely for strengthening the work designed to build up a strong American citizenship.

c. The specialization period in college should be checked up with special reference to the prevalence of the vocational motive in the minds of both the teachers and the students, and the effectiveness of the plans of specialization now used in meeting this vocational need.

d. A series of correlation studies are needed to check up such claims as:

(1) Mathematics gives training in such traits as exactness, straight thinking, respect for truth and the like.

(2) A foreign language is the best medium for a correct understanding and use of the English language.

(3) Five hour courses for a quarter are superior to three hour courses for a semester.

(4) Students who fail in college courses are not of such sort as to profit by college attendance, and therefore colleges should function as elimination agencies.

(5) Teachers' marks—even as subjective as they are—are a fair measure of student work. Much study of tests, examinations, marking systems and the like would be valuable.

The above suggestions for needed research are an indication that we have not gone very far in the scientific study of college problems. With the rapidly mounting cost of college education, and the natural and proper tendency of the people at large to question more and more vigorously this increasing cost, it is very essential that colleges strengthen their foundation as early as possible, by answering with whatever data they can the questions being so urgently raised.

APPENDIX A

Here is given the outline of the study as approved by the committee of the Commonwealth Fund, and also the blank forms and questionnaires used.

OUTLINE FOR A LIMITED STUDY OF COLLEGES OF ARTS AND SCIENCES

THE PURPOSE OF THE STUDY.

I. To determine the objectives of the colleges of arts and sciences in the United States, as held by college faculties and other educators.

II. To give a faithful account of the activities, practices and educational beliefs prevailing in a limited list of colleges of arts and sciences and whenever possible, a measure of the results achieved.

III. To evaluate these activities, practices, beliefs and results in terms of the recognized objectives of the college.

THE PROCEDURES IN THE STUDY.

I. To determine the objectives of the college of arts and sciences as follows:

- A. Gather statements of aims or objectives from catalogs and educational literature.
- B. Supplement these by correspondence with college officials.
- C. Submit statements gained from these, to representative college officials.
- D. Formulate such a statement of objectives as will call for answers to the following questions:

- a. Is college work essentially different from high school work, and if so, in what ways?
- b. Is a fund of information common to all college students necessary?
- c. Is information the essential outcome of each course in college?
- d. Is it the function of the college—in conjunction with the earlier schools—to inculcate: (1) habits of study, (2) independence of thought, (3) high ideals of character and, (4) power of will, which will determine throughout the life of the student how he will attack problems in life, whether he will live according to high standards of morals?

II. To Gather Data:

- A. Visit ten or twelve typical colleges where invited to do so by the presidents including the Universities of Minnesota, Washington, Nebraska and North Carolina; the following endowed universities: Vanderbilt, Harvard, Leland Stanford; the following endowed colleges: Oberlin, Dartmouth, Grinnell, Baker and Rockford; and Cincinnati University representing city universities.

During these visits secure the following sorts of data:

- A. Schedule of topics on organization and administration will be filled out in conference with the appropriate officers.
- B. Hold conferences on methods of teaching with representative college teachers. (Topics attached.)
- C. Hold conferences with representative students. (Topics attached.)
- D. Submit through college officials a questionnaire to a random selection of college seniors. (Schedule attached.)

- E. Submit through the alumni office appropriate questions to alumni of 8 to 13 years out of college. (Schedule attached.)
- F. Address selected prominent alumni personal letters covering significant aims and practices of colleges. (Topics attached.)

III. Formulate a report, detailing the avowed aims of the colleges, the actual practices of the colleges and giving a criticism.

SCHEDULE I

DATA TO BE SECURED IN CONFERENCE WITH COLLEGE OFFICIALS

(To be obtained mostly from catalogs and other printed reports)

Organization and Administration

- A. General plan of curriculum construction:
 - a. Specific entrance requirements.
 - b. Accrediting schools and methods of admission.
 - c. Required courses (dovetailing with H. S.).
 - d. How is breadth assured? (dovetailing with H. S.).
 - e. Materials combined in "common courses."
 - f. Major requirements; and minor requirements:
 - 1. Related departments.
 - 2. Unrelated departments.
- B. Credit hours enrolled for by students:
 - a. In general.
 - b. In accordance with differing ability as shown by
 - 1. Psychological tests.
 - 2. Previous grades.
 - 3. Outside work.

C. Devices for encouraging high scholarship:

- a. In general
 - 1. Grading system used.
 - 2. Studies made of marks given by teachers and departments.
- b. Treatment of those who fail:
 - 1. How discovered.
 - 2. Probation.
 - 3. Dismissal—temporary, permanent.
 - 4. Change of curricula allowed.
- c. Treatment of superior students:
 - 1. How discovered.
 - 2. Increased amount of work.
 - 3. Extra credit in courses.
 - 4. Sectioning of classes on basis of ability.
 - 5. Distinct curricula and methods for the superior student.
- d. Credit for quality, honor points, grade points, etc.

D. Guidance of students in selection of courses and curricula:

- a. Entering students:
 - 1. Information required from high school:
 - Subjects.
 - Grades.
 - Principal's or other citizen's endorsement and character analysis.
 - 2. Vocational guidance
 - Talks on vocations.
 - Literature on vocations.
 - 3. Intelligence tests, physical examinations, personnel cards, etc.
 - 4. Counsel with faculty members, dean of students, etc.
 - Time devoted to it.
 - Few trained advisers, or many untrained.

- b. Students already matriculated:
 - 1. Plans for conference.
 - 2. Early enrollment.
 - 3. Enrollment by mail.
 - 4. Enrollment for more than one semester at a time.
- E. Types or methods of teaching contemplated in scheme of college administration:
 - a. Lecture, discussion, quiz, laboratory, tutorial, seminar.
 - b. Types of assignment—textbook, library, kind of preparation required, etc.
 - c. Determining factors in teaching and assignments:
 - 1. Information.
 - 2. Intellectual habits.
 - 3. Character formation.
 - d. Is different method desirable for cultural courses from that best for vocational courses?
- F. Are character and leadership admitted as legitimate products of college training, and if so, how developed?
 - a. In classroom procedures (by conscious purpose of teachers or otherwise)
 - b. In social activities—clubs, parties, athletics, etc.
 - c. In home life:
 - 1. Coöperative enterprises in room and boarding places
 - 2. College supervision over rooming and boarding houses
 - 3. Dormitories—men and women
- G. Form and extent of student government
 - a. Activities covered
 - b. Method of election

- c. Activities of faculty
 - 1. Deans of men and women
- d. Point system of limiting participation
- H. Support and control of student activities not under student government
 - a. Athletics
 - b. Student publications
 - c. Social affairs such as dancing
 - d. Automobiles
- I. The honor system in student written exercises.

SCHEDULE II

TOPICS FOR INTERVIEW WITH REPRESENTATIVE TEACHERS

- A. Circumstances calling for
 - a. Lecture
 - b. Discussions
 - c. Seminar
- B. Evidences of Student's study
 - a. Quiz
 - b. Notebooks
 - c. Course examination
 - d. Subject examination
- C. Teacher's use of outlines
- D. Methods of assuring lasting memory of important materials
- E. Methods of cultivating acquaintance with students:
 - a. Seating in class by chart
 - b. Series of conferences
 - c. Social functions

- F. Devices for developing initiative, intellectual honesty, independence in study, etc.
- G. Recognition of difference between needs of students of varying abilities, especially needs of potential leaders.
- H. Is difference in functions recognized between cultural and vocational courses?
- I. Discussion of value and dangers of extra-curricula activities.

SCHEDULE III

TOPICS FOR INTERVIEWS WITH REPRESENTATIVE STUDENTS

- A. An account of just what goes on in some specific class.
 - a. Lecture
 - b. Quiz
 - c. Discussion
 - d. LaboratoryWith reference to
 - 1. Loss of time
 - 2. Attention in class
 - 3. Evident aim of teachers:
 - (a) Information
 - (b) Training in habits of study
 - (c) Developing clear thinking in class
- B. Evaluation of materials in course
- C. Evaluation of extra-curricula activities
 - a. Honestly administered
 - b. Qualities of leadership developed
 - c. Expense
- D. Is student self-government effective? Over what activities?
- E. The honor system in examinations.

SCHEDULE IV

QUESTIONS TO COLLEGE SENIORS AND ALUMNI:

1. Recall the teacher of whom you can say, "He (or she) is the best college teacher I ever had." If no teacher stands out in your mind that strongly, then choose one from among your best teachers. Please answer the following questions with reference to that teacher:
 - A. His name (omit the name if you prefer).....
.....
 - B. In what department did he teach?.....
.....
 - C. Check at the left those of the following statements which you believe to be true of the teacher named, and then underscore the most significant statement:
 - ..a. The above teacher had a more profound knowledge of his subject than other teachers.
 - ..b. The above teacher was more careful in organizing his subject than other teachers.
 - ..c. He seemed to adapt his subject better to the needs of the student.
 - ..d. He seemed to appreciate better the difficulties of students.
 - ..e. His courses required less work than the average college course.
 - ..f. His courses required more work than the average college course.
 - ..g. He expected more initiative and allowed more independence to students.
 - ..h. He emphasized life situations more in his teaching than did other teachers.
 - ..i. There was more of an inspiration for clean, honest living in his teaching.
 - ..j. He was more of a comrade with his students.

D. Give any other brief characterization of the teacher
which seems to you important.....

.....

E. Give any general suggestion you care to concerning
the methods of teaching used by college teachers

.....

.....

.....

.....

.....

2. Leaving out the courses which have been of distinctly
practical or of vocational value, recall the college course
which you prize most highly of all the courses you have
studied:

A. Name of course..... Teacher.....

B. Check the following statements which you believe
to be true about the above course, and under-
score the most significant statement:

..a. The facts contained in the course
seemed to appeal more strongly to my
instinctive interests than facts in other
courses.

..b. The course served better than other
courses to establish in me better
methods of study.

..c. The skillful organization of the materials
of the course in skeleton outline form
was the chief reason for its superior
worth.

..d. The course served better than other
courses to build up intellectual honesty.

..e. The materials of the course applied more
to life situations than did the materials
of other courses.

..f. The method or personality of the teacher
rather than the particular materials of
the course was responsible for the high
value I attach to the course.

C. Make any other statement about the course which indicates the reason for its high value to you:..

.....
.....
.....
.....
Signed
Department in which major work was done.....
What college or university?.....
Have you been partially.....or wholly.....
self-supporting while attending college?
Year graduated (if an alumnus).....
Present occupation (if an alumnus).....

SCHEDULE V

QUESTIONS FOR ALUMNI:

- 1-2. Please answer the questions on the reverse side of this sheet. (Found above.)
- 3. Questions concerning the courses offered in colleges of liberal arts and sciences:
 - A. What courses did you take in college which you would not take now if you were just beginning your college course:

.....
.....
.....

B. What courses would you take in place of the above?

.....
.....
.....
.....

C. What is the essential reason for the change?.....

.....
.....
.....
.....

- D. About how many semester hours did you take in courses in your major department?.....
 Would you advise more specialization or less than you had?.....

- E. Do you favor having a few basic courses such as "Foundations of Civilization," required of all students?

4. Non-class activities:

- A. Underscore the following activities you were keenly interested in while at college: Student elections; social functions, such as dancing; literary societies; musical organizations; debating; dramatics; athletics; Christian associations; church work; student publications.

- B. Do you believe the time you devoted to these activities is proving profitable to you now?.....
 What are the chief values you gained from them?

- C. Do you favor the principle, if wisely safeguarded, of special college recognition in the form of credits toward graduation for students who hold responsible positions in the more time-consuming student activities?

- D. What suggestions have you for the betterment of non-class activities in college?.....

5. General Question:

Granting that broad information, intellectual honesty, moral courage, resourcefulness, initiative, etc., are

among the best evidences of "education," did your years at college operate to strengthen these qualities? If so, check the following which contributed to it, and underscore the most important:

1. Information acquired;
2. Habits of study gained;
3. Personal friendships enjoyed;
4. Inspiration from good teachers;
5. Extra-class activities participated in.

6. General Question to Women Graduates Only:

Do you favor having the problems of home-making, cooking, sewing, home management, child care, home nursing, etc., made a requirement for girls in either high school or college?..... Which is the more appropriate age, high school or college?..... Please return questionnaire in enclosed self-addressed stamped envelope to Dean F. J. Kelly, Lawrence, Kansas.

SCHEDULE VI

PERSONAL LETTER TO A FEW WELL KNOWN ALUMNI OF EACH INSTITUTION

Asking:

- A. Whether the particular materials in the courses studied are the significant things determining the value of a course.
- B. Whether great specialization for vocational purposes is desirable in colleges of arts and sciences.
- C. Whether teaching methods should tend more to exact requirements or more to independence of students in their study.
- D. Whether inspiring personalities as teachers are more important than profound scholarship.

- E. Whether extra-class activities are being stressed too much.
- F. Whether opportunities for close friendships among students should be fostered.
- G. Does a college education tend to increase:

Public spiritedness

Economic success

Observance of high moral standards

- H. Are four years of college above the four year high school course necessary to accomplish the essential results, or would a shortened period suffice?

SCHEDULE VII

LETTER TO DEANS OF COLLEGES

DEAR DEAN.....

The Research Committee of the Commonwealth Fund of New York City has asked me to conduct a study of the organization and administration of the curricula of a limited list of colleges of arts and sciences. As a part of that study I am collecting from a larger list of colleges, statements of aims or functions of the college. To this end, I am asking your cooperation, with the assurance that you will be provided with whatever published reports may be forthcoming from the study.

If your faculty has ever formulated a statement of aims or functions, I shall appreciate a copy of such statement. If no such statement has ever been formulated by your faculty, will you be willing to undertake such a formulation, either with or without the cooperation of a committee of your faculty? I shall thank you for such a formulation.

I am enclosing a statement of aims which has had approval of certain college people in the hope that if you do not have time to formulate a statement yourself, you may still be able to criticise this statement.

Thanking you in advance for your courtesy, and enclosing a self-addressed stamped envelope for your use in replying, I am

Sincerely yours,

F. J. KELLY,
Dean of Administration.

(Enclosure with letter to deans of colleges)

TYPICAL STATEMENT OF AIMS OF COLLEGES OF LIBERAL ARTS

The Aims of the College of Arts and Sciences are:

1. *Preparatory:*

Supplementing the work of the lower schools, a college education should give possession of such tools of learning as will make the pursuit of necessary study both in college and throughout life, pleasant and effective.

2. *Cultural:*

In preparation for the non-vocational life, a college education should secure:

- a. The possession of such an appreciation of one's own responsibility for social progress and such an attitude toward study as will most nearly assure a scholarly examination of social situations as they arise in life.
- b. The possession of such information, social experience, and æsthetic appreciation as will most nearly assure judgments, both intellectual and moral, in accord with modern social demands.
- c. Self-mastery such as will most nearly assure behavior in conformity with one's judgment.

3. *Vocational:*

- a. So far as it can be given more effectively and economically in college than in apprenticeship, the college should afford such knowledge and skill in those vocations, success in which depends to a marked degree upon general culture, as will most nearly assure successful pursuit of the given vocations with a minimum term of apprenticeship.

- b. In connection with those vocations calling for highly specialized curricula the college should afford those general studies which are basic for the specialized curricula, but which are not in themselves specialized to any considerable extent.

SCHEDULE VIII

LETTER TO HIGH SCHOOL PRINCIPALS

DEAR

In a study of colleges of arts and sciences which I am making at the invitation of the Educational Research Committee of the Commonwealth Fund of New York City, I am comparing the aims or purposes of colleges with those of high schools. Have you ever formulated a statement of the aims or purposes of the senior high school as a unit of our American school system? If not, are you willing to attempt such a formulation for use in this comparison?

In order to facilitate your effort, I am enclosing a statement which you may criticise if you prefer. It is offered merely as a type of statement which incorporates certain purposes. Which of these purposes belong to high school, and what others not included in the statement should be incorporated, will become clear from the criticism of a score or more of leading high school principals.

I shall appreciate your cooperation. Please use the enclosed addressed, stamped envelope for your reply.

Sincerely yours,

F. J. KELLY,
Dean of Administration.

(Enclosure with letter to principals of high schools)

AIMS OR PURPOSES OF THE SENIOR HIGH SCHOOL IN THE
AMERICAN SCHOOL SYSTEM1. *Preparatory:*

Supplementing the work of the lower schools to give possession of such tools of learning as will make the

pursuit of necessary study both in high school and throughout life pleasant and attractive.

2. *Cultural:*

In preparation for the non-vocational life, to give:

- a. The possession of such an appreciation of one's own responsibility for social progress and such an attitude toward study as will most nearly assure a scholarly examination of social situations as they arise in life.
- b. The possession of such information, social experience, and æsthetic appreciation as will most nearly assure judgments, both intellectual and moral, in accord with modern social demands.
- c. Self-mastery such as will most nearly assure behavior in conformity with one's judgment.

3. *Vocational:*

So far as it can be given more effectively and economically in high school than in apprenticeship, the high school should afford such knowledge and skill in those vocations, success in which depends to a marked degree upon general culture, as will most nearly assure successful pursuit of the given vocations with a minimum term of apprenticeship.

SCHEDULE IX

LETTER TO WELL KNOWN COLLEGE GRADUATES

DEAR.....

The Educational Research Committee of the Commonwealth Fund of New York City has invited me to undertake a study of certain aspects of colleges of arts and sciences in this country. The particular things to be inquired into are: (1) materials of the courses, (2) the methods of teaching, and (3) the extra-curricular activities.

Among the data which I am assembling, the opinions of the

more distinguished alumni of these colleges will be a very important part. I am, therefore, addressing you as one of a hundred prominent graduates of widely scattered, but well recognized colleges. These hundred men and women are asked to write frankly their views of colleges of liberal arts and sciences as they are organized today. What they say will not be used in a personal way, nor will the college of which a given person is a graduate be mentioned in connection with what the graduate says.

The sort of reply which will help the committee most is an informal expression of opinion covering the weaknesses and strengths of the American college. However, if it will be easier, the enclosed questions may be answered. We shall be grateful if you will respond by either method.

An addressed stamped envelope is enclosed for your use.

Sincerely yours,

F. J. KELLY,

Dean of Administration.

(Enclosure with letters to well-known college graduates)

Answers submitted by.....

A graduate of..... College of Liberal Arts.

A. Which is most significant in determining the value of a college subject of study: (a) the information acquired; (b) the habits of study acquired; (c) the ideals of character established?

.....
B. Is extensive specialization for some vocation desirable in colleges of arts and sciences?

.....
C. Should methods of college teaching tend more to exact assignments of work or more to independence of students in their study of a given subject?

.....
D. Which is more important in college teachers, profound scholarship or inspiring personality?

.....
E. Are extra-class activities being stressed too much in college today?

.....

F. Does a college education tend to increase:

a. Public spiritedness?.....

b. Economic success?.....

c. Observance of high moral standards?.....

G. How many years above high school should the college course extend when considered as an institution of liberal arts and sciences?

.....

H. Other comments:

APPENDIX B

Here are given the summary tables computed from returns on the questionnaires, Schedules IV, V, and IX as shown in Appendix A.

TABLE I

Number of Sheets Returned From:

	Seniors, 1923			Alumni Classes 1910-14		
	Men	Women	Total	Men	Women	Total
THE COLLEGE OF ARTS OF:						
Baker University	6	6	12	38	20	58
Cincinnati University.	0	0	0	16	9	25
Dartmouth College...	20	0	20	42	0	42
Grinnell College.....	9	24	33	49	15	64
Leland Stanford, Jr., University	19	1	20	21	3	24
Minnesota University.	14	13	27	32	20	52
Nebraska University..	15	36	51	16	14	30
North Carolina Uni- versity	0	0	0	31	0	31
Oberlin College	52	85	137	19	24	43
Rockford College.....	0	20	20	0	29	29
Vanderbilt University.	3	0	3	42	5	47
Washington State Uni- versity	13	31	44	27	21	48
Miscellaneous (re- ceived too late to tabulate with respec- tive colleges).....	2	3	5	24	29	53
	<hr/> 153	<hr/> 219	<hr/> 372	<hr/> 357	<hr/> 189	<hr/> 546

TABLE I-A

Department in which major work was done

	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
SENIORS AND ALUMNI WHOSE MAJOR WAS:						
Anatomy	0	0	0	0	0	0
Bacteriology	0	0	0	0	1	1
Biology	1	0	1	9	2	11
Botany	1	0	1	4	0	4
Entomology	1	0	1	0	0	0
Physiology	0	0	0	1	2	3
Zoölogy	1	1	2	4	2	6
Total Biological.....	4	1	5	18	7	25
Chemistry	10	3	13	17	2	19
Geology	0	0	0	8	1	9
Physics	2	0	2	4	0	4
Total Physical.....	12	3	15	29	3	32
Economics	33	8	41	52	7	59
History	10	30	40	42	16	58
Political Science	13	2	15	44	2	46
Sociology	3	21	24	3	5	8
Total Social Studies..	59	61	120	141	30	171
English	22	77	99	58	51	109
Public Speaking	1	0	1	0	0	0
Total English Group	23	77	100	58	51	109
French	2	16	18	5	10	15
German	0	7	7	11	20	31
Spanish	0	7	7	3	6	9
Total Modern Foreign Languages ..	2	30	32	19	36	55
Total Ancient Languages	2	5	7	16	21	37
Total Mathematics..	6	7	13	19	8	27
Total Philosophy and Psychology	9	10	19	14	8	22
Art	4	16	20	6	2	8
Education	8	8	16	13	4	17
Engineering	9	0	9	13	1	14
Home Economics	0	5	5	0	6	6
Law	3	0	3	14	0	14
Medicine	5	0	5	5	0	5
Physical Education	0	0	0	1	0	1
Total other subjects..	29	29	58	52	13	65
GRAND TOTAL	146	223	369	366	177	543

TABLE I-B

Recall the teacher of whom you can say, "He (or she) is the best college teacher I ever had." If no teacher stands out in your mind that strongly, then choose one from among your best teachers.

	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
A. The sex of the teachers named by men137		3	140	315	8	323
The sex of teachers named by women ...156		29	185	106	30	136
B. The number of times the "best college teacher" taught in each department:						
Anatomy	1	1	2	1	0	1
Bacteriology	1	0	1	0	0	0
Biology	0	2	2	21	4	25
Botany	1	2	3	4	3	7
Entomology	0	0	0	0	0	0
Physiology	0	1	1	4	0	4
Zoölogy	6	8	14	6	1	7
Total Biological	9	14	23	36	8	44
Chemistry	6	4	10	23	1	24
Geology	4	3	7	12	2	12
Physics	1	1	2	5	0	5
Total Physical	11	8	19	40	3	43
Economics	11	7	18	29	9	38
History	15	30	45	43	25	68
Political Science	6	7	13	17	2	19
Sociology	3	11	14	12	6	18
Total Social Studies.	35	55	90	101	42	143
English	30	87	117	88	43	131
Journalism	1	0	1	0	0	0
Public Speaking	1	1	2	11	1	12
Total English Group	32	88	120	99	44	143
French	0	5	5	2	1	3
German	2	2	4	3	4	7
Spanish	0	3	3	0	0	0
Total Modern Lan- guages	2	10	12	5	5	10

TABLE I-B—*continued*

	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
Total Ancient Lan- guages	5	7	12	27	16	43
Total Mathematics..	7	9	16	16	7	23
Total Philosophy and Psychology	14	21	35	30	19	49
Art	2	8	10	2	1	3
Education	7	13	20	5	7	12
Engineering	8	0	8	10	1	11
Home Economics	0	3	3	0	1	1
Law	6	1	7	7	0	7
Total other subjects.	23	25	48	24	10	34
GRAND TOTAL	138	237	375	378	154	532

TABLE I-C

(a) Check the following statements which you believe to be true of the teacher named as the "best college teacher":

	Number Times Checked					
	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
1. This teacher had a more profound knowledge of his subject than others	121	159	280	227	111	338
2. This teacher was more careful in organizing his subject than others.	102	154	256	243	97	340
3. He seemed to adapt his subject better to the needs of the student..	112	142	254	224	92	316
4. He seemed to appreciate better the difficulties of students	86	131	217	196	67	263
5. His courses required less work than the average college course.	11	14	25	22	6	28
6. His courses required more work than the average college course.	75	91	166	160	75	235
7. He expected more initiative and allowed more independence to students	104	139	243	245	95	340
8. He emphasized life situations more in his teaching than did other teachers	94	132	226	215	99	314
9. There was more of an inspiration for clean, honest living in his teaching	82	143	225	205	76	282
10. He was more of a comrade with his students.	79	75	154	116	42	158
Totals	866	1180	2046	1854	760	2614

TABLE I-C

(b) Underscore the following statement which you believe to be the most significant concerning the teacher named as "the best college teacher":

	Number of Times Underscored					
	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
1. This teacher had a more profound knowledge of his subject than had other teachers....	16	18	34	27	9	36
2. This teacher was more careful in organizing his subject than others ...	11	15	26	26	16	42
3. He seemed to adapt his subject better to the needs of the student ..	13	20	33	27	7	34
4. He seemed to appreciate better the difficulties of his students ...	10	10	20	18	18	36
5. His courses required less work than the average college course.	1	0	1	1	1	2
6. His courses required more work than the average college course.	2	5	7	6	2	8
7. He expected more initiative and allowed more independence to students	24	13	37	53	19	72
8. He emphasized life situations more in his teaching than did other teachers	17	33	50	43	22	65
9. There was more of an inspiration for clean honest living in his teaching	13	23	36	44	12	56
10. He was more of a comrade with his students.	18	5	23	14	4	18
Totals	125	142	267	259	110	369

TABLE I-D

Give any other brief characterization of "the best college teacher" which seems to you important:

	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
1. Comments classified as "good teaching qualities"	63	72	135	153	54	207
2. Comments classified as "qualities of scholarship"	29	31	60	68	21	89
3. Comments classified as "rigid requirements" ..	8	4	12	21	12	33
4. Comments classified as "sympathy," "coöperation," "charity," etc....	37	50	87	95	46	141
5. Other comments	4	6	10	9	5	14
Totals	141	163	304	346	138	484

TABLE I-E

Give any suggestion you care to concerning the methods of teaching used by college teachers.

COMMENTS CLASSIFIED AS:	Number	
	by Seniors	by Alumni
1. Favorable without discrimination	0	8
2. Commend the lecture method (most often "provided discussions accompany it")	3	3
3. Teachers too "academic," "pedantic," "dogmatic," "impractical," make too few applications to life	28	50
4. Teachers emphasize facts or memory rather than thinking, reasoning, initiative, etc. ..	43	66
5. Teachers interested in their subjects rather than in their students; miss student viewpoint, etc.	20	43
6. Teachers lack sympathy, charity, etc.	10	14
7. Poor adaptation of work to student abilities	11	24
8. Adverse criticisms of the lecture method or of the extent of its use	23	31
9. Provide for too little participation by students	32	9
10. Teachers fail to organize their work effectively	20	17
11. Mention specifically need of psychology or pedagogy	3	12
12. Teachers lazy, indifferent, colorless, uninteresting, etc.	12	12
13. Assignments and other requirements unreasonable	5	6
14. Miscellaneous including: Undiscriminating adverse criticism, comments generally favorable but with qualifications, advocating "case method," criticising student readers, criticising examinations, etc.	32	46
Totals	242	341

TABLE II

Leaving out the courses which have been of distinctly practical or of vocational value, recall the college course which you prize most highly of all the courses you have studied:

A. The number of times the "best course" was in the several departments:

	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
Anatomy	0	5	5	1	0	1
Bacteriology	0	0	0	1	1	2
Biology	3	2	5	11	6	17
Botany	0	1	1	2	0	2
Entomology	0	0	0	1	0	1
Physiology	0	0	0	3	1	4
Zoology	3	6	9	1	5	6
Total Biological	6	14	20	20	13	33
Chemistry	2	4	6	6	2	8
Geology	4	3	7	11	1	12
Physics	0	1	1	6	1	7
Total Physical	6	8	14	23	4	27
Economics	3	5	8	21	2	23
History	8	19	27	33	18	51
Political Science	1	1	2	9	1	10
Sociology	8	13	21	9	6	15
Total Social Studies ..	20	38	58	72	27	99
English	22	54	76	68	34	102
Public Speaking	1	2	3	11	1	12
Total English Group ..	23	56	79	79	35	114
French	0	3	3	2	4	6
German	0	0	0	2	1	3
Spanish	1	2	3	0	0	0
Total Modern Foreign Languages	1	5	6	4	5	9
Total Ancient Languages	4	3	7	13	10	23
Total Mathematics ...	1	1	2	9	3	12
Total Philosophy and Psychology	17	29	46	24	27	61
Art	1	11	12	4	8	12
Education	1	0	1	3	2	5
Engineering	0	0	0	0	1	1
Home Economics	0	2	2	0	10	10
Law	1	1	2	3	0	3
Total other subjects ..	3	14	17	10	21	31
GRAND TOTAL	81	168	249	264	145	409

TABLE II-B

(a) Check the following statements which you believe to be true concerning the "best course":

	Number Times Checked					
	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
1. The facts contained in the course seemed to appeal more strongly to my instinctive interests than facts in other courses	94	161	255	193	111	304
2. The course served better than other courses to establish in me better methods of study	126	70	196	154	55	209
3. The skillful organization of the materials of the course in skeleton outline form was the chief reason for its superior worth	36	56	92	86	45	131
4. The course served better than other courses to build up intellectual honesty	89	133	222	140	67	207
5. The materials of the course applied more to life situations than did the materials of other courses	98	130	228	158	99	257
6. The method or personality of the teacher rather than the particular materials of the course was responsible for the high value I attach to the course	74	136	210	153	83	236
Total	517	686	1203	884	460	1344

TABLE II-B

(b) Underscore the following statement which you believe to be the most significant concerning the "best course":

	Number Times Underscored:					
	Seniors			Alumni		
	Men	Women	Total	Men	Women	Total
1. The facts contained in the course seemed to appeal more strongly to instinctive interests than facts in other courses...	11	20	31	18	10	28
2. The course served better than other courses to establish in me better methods of study	6	5	11	13	3	16
3. The skillful organization of the materials of the course in skeleton outline form was the chief reason for its superior worth	4	4	8	17	6	23
4. The course served better than other courses to build up intellectual honesty	14	19	33	11	3	14
5. The materials of the course applied more to life situations than did the materials of other courses	13	37	50	36	28	64
6. The method or personality of the teacher rather than the particular materials of the course was responsible for the high value I attach to the course	17	43	60	47	23	70
Total	65	128	193	142	73	215

TABLE II-C

Make any other statement about the "best course" which indicates the reason for its high value to you.

No satisfactory classification of the replies to this question was found. A reading of them leaves the impression that courses are valued which aid directly in interpreting real life situations, and which afford an opportunity to the teacher to inspire his students.

TABLE III-A AND -B

	Answers to the question: "What courses did you take in college which you would not take now if you were just beginning your college career?"			Answers to the question: "What courses would you take in place of the ones you would omit?"		
	Men	Women	Total	Men	Women	Total
NUMBER OF TIMES EACH DEPARTMENT WAS MENTIONED:						
Anatomy	3	0	0	0	0	0
Bacteriology	3	0	3	0	0	0
Biology	1	1	2	20	11	31
Botany	8	4	12	5	6	11
Entomology	0	0	0	0	2	2
Physiology	0	0	0	5	1	6
Zoölogy	9	2	11	2	3	5
Total Biological Sciences	24	7	31	32	23	55
Chemistry	20	8	28	20	10	30
Geology	4	2	6	12	5	17
Physics	20	6	26	16	3	19
Total Physical Sciences	44	16	60	48	18	66
Economics	20	1	21	60	15	75
History	18	8	26	49	22	71
Political Science	16	2	18	9	4	13
Sociology	6	5	11	35	19	54
Total Social Studies	60	16	76	153	60	213
English	17	17	34	41	27	68
Journalism	0	1	1	3	2	5
Public Speaking	4	2	6	11	1	12
Total English Group	21	20	41	55	30	85

TABLE III-A AND -B—*continued*

	Alumni			Alumni		
	Men	Women	Total	Men	Women	Total
French	24	7	31	27	16	43
German	58	23	81	13	3	16
Spanish	9	3	12	14	6	20
Total Modern Foreign Languages ...	91	33	124	54	25	79
Total Ancient Languages	55	41	96	11	4	15
Total Mathematics..	57	32	89	22	4	26
Total Philosophy and Psychology	9	10	19	34	18	52
Art	8	4	12	9	11	20
Education	6	7	13	2	4	6
Engineering	3	0	3	3	0	3
Home Economics	0	2	2	4	16	20
Law	1	0	1	0	0	0
Total other subjects.	18	13	31	18	31	49
GRAND TOTAL	379	188	567	427	213	640

TABLE III-C

What is the essential reason for the change indicated in B?

An attempt was made to classify the 141 answers under six heads, but it was found that 109 of them fell under some phase of "would apply more to life situations." From a study of the answers the only interpretation of this category which I feel safe in making is that these alumni believe that the materials of the courses should bear a very definite and recognizable relation to life.

TABLE III-D

1. About how many semester hours did you take in your major department?

Because of lack of common understanding of the term "semester hour" the answers to this question could not be tabulated.

2. Would you advise more specialization or less than you had?

	Men	Women	Total
More	84	38	122
Less	53	25	78
No change	67	46	113
Total	204	109	313

TABLE III-E

Do you favor having a few basic courses such as "Foundations of Civilization" required?

	Men	Women	Total
Yes	266	111	377
No	54	24	78
Qualified answers	18	11	29
Totals	338	136	484

TABLE IV-A

Underscore the following activities you were keenly interested in while in college.

Number of Times Underscored

	Men	Women	Total
Student Elections (politics)	127	49	176
Social Functions such as Dancing	80	59	139
Literary Societies	143	70	213
Musical Organizations	60	26	86
Debating	113	13	126
Dramatics	71	40	111
Athletics	200	52	252
Christian Associations	101	67	168
Church Work	55	28	83
Student Publications	109	33	142
Total	1059	437	1496

TABLE IV-B

Do you believe the time you devoted to these activities is proving profitable to you now?

	Men	Women	Total
Yes	326	126	452
No	21	7	28
Total	347	133	488

TABLE IV-C

What are the chief values you gained from non-class activities?

	Men	Women	Total
Answers classified as Physical and Health Values	117	27	144
Answers classified as Mental Values	147	56	203
Answers classified as Social Values	101	48	149
Answers classified as affording experience with real life situations	110	50	160
Total	475	181	656

TABLE IV-D

Do you favor the principle, if wisely safeguarded, of special college recognition in the form of credits toward graduation for students who hold responsible positions in the more time-consuming student activities?

	Men	Women	Total
Yes	147	74	221
No	114	37	151
Total	261	111	372

TABLE IV-E

What suggestions have you for the betterment of non-class activities in college?

Suggestions could not be satisfactorily classified, but frequent mention was made of the following:

1. Limit the amount by some "point system."
2. Extend the advantages to larger numbers
 - (a) without suggesting method
 - (b) by requiring participation.
3. Increase democracy in the control of activities by abolishing "cliques," secret societies, etc.
4. More faculty supervision and control.
5. Making participation dependent upon maintaining high scholarship.

TABLE V-A

Granting that broad information, intellectual honesty, moral courage, resourcefulness, initiative, etc., are among the best evidences of "education," did your years at college operate to strengthen these qualities?

	Men	Women	Total
Yes	325	113	438
No	6	1	7
	<hr/>	<hr/>	<hr/>

TABLE V-B

If so, check the following which contributed to it, and underscore the most important.

	Times Checked			Times Underscored		
	Men	Women	Total	Men	Women	Total
1. Information acquired ..	253	110	363	52	13	65
2. Habits of study gained ..	253	112	365	86	21	107
3. Personal friendships enjoyed	270	126	396	70	28	98
4. Inspiration from good teachers	275	123	398	100	58	158
5. Extra class activities participated in	190	73	263	39	15	54
Total	1241	544	1782	347	135	482

TABLE VI-A

Do you favor having the problems of home making, cooking, sewing, home management, child care, home nursing, etc., made a requirement for girls in either high school or college?

	Women
Yes	121
No	30
Total	<hr/> 151

TABLE VI-B

Which is the more appropriate age, high school or college?

High School Age	111
College Age	36
Total	<hr/> 147

SUMMARY TABLES FROM ANSWERS BY WELL-KNOWN
GRADUATES WHOSE NAMES WERE SUPPLIED BY THE
ALUMNI OFFICES IN THE SEVERAL COLLEGES

Number of answer sheets returned 41

1. Which is the most significant in determining the value of a college subject of study?

Number
Answering

- (a) The information acquired:

Ranked as first by	2
Ranked as second by	2
Ranked as third by	17

- (b) The habits of study acquired:

Ranked as first by	14
Ranked as second by	15
Ranked as third by	1

- (c) The ideals of character established:

Ranked as first by	15
Ranked as second by	6
Ranked as third by	3

2. Is extensive specialization for some vocation desirable in colleges of arts and sciences?

Yes	4
Yes, with qualifications	4
No	31

3. Should methods of college teaching tend more to exact assignments of work, or more to independence of students in their study of a given subject?

Exact assignments	15
Exact assignments in lower division of college....	8
Independence of study	13
Independence of study in upper division of college	9

4. Which is more important in college teachers, profound scholarship or inspiring personality?

Profound scholarship	5
Inspiring personality	29
Impossible to separate, or both equal	4

5. Are extra class activities being stressed too much in college today?

Yes	15
Yes, with qualifications	11
No	7
No, with qualifications	4

6. Does a college education tend to increase?

(a) Public spiritedness:

Yes	29
Yes, with qualifications	7
No	2

(b) Economic success:

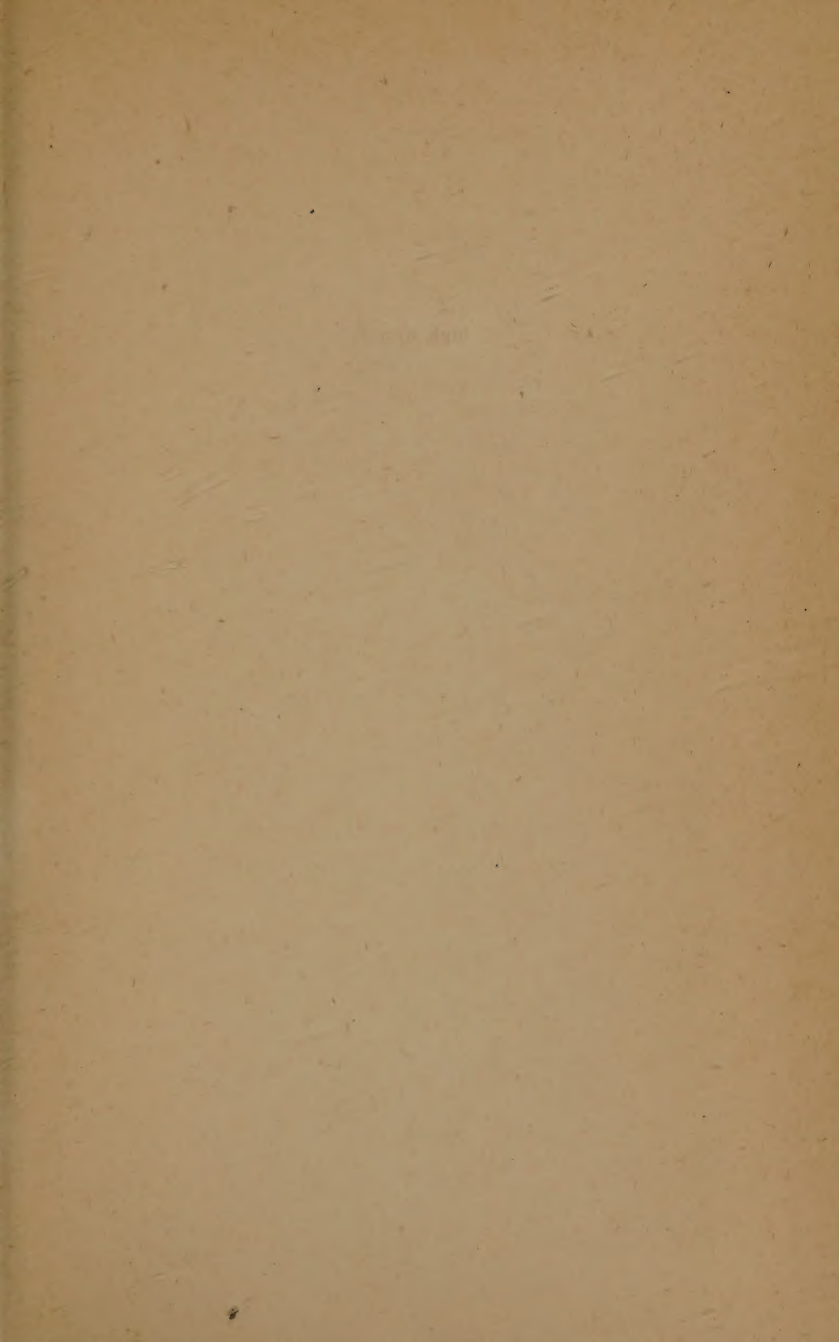
Yes	24
Yes, with qualifications	7
No	5

(c) Observance of high moral standards:

Yes	23
Yes, with qualifications	13
No	2

7. How many years above high school should the college course extend when considered as an institution of liberal arts and sciences?

2 years	3
3 years	9
4 years	26
5 years	1



[illegible]

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